BRITAIN'S BRIGHTEST AND BEST AMIGA MAGAZINE

AMIGA COMPUTING

June 1991 Issue 37 £2.99

This little piggy went to PD market

Did he make huge savings – or buy a pig in a poke? Public Domain explored

Anniversary jolts!

It's our third birthday – we review 3 years of Amiga events

Going for Gould

Commodore's top man Irving Gould outlines the future for the Amiga

Squash dem bugs!

Arcade action on your free disk – plus sizzling samples for use in MED

06
9 770959 963015

WIN an entire PD Disk library

See Page 121

PLUS: Games • DTV • Machine Code • Music • Comms • Amos • DTP

Presenting PROTEXT 5.0

Five years to the month after Protext version 1 was launched Arnor are pleased to present version 5, an enormous leap forward in both ease of use and performance.

Protext 5.0 introduces a completely integrated system of pull down menus and dialogue boxes. The menus are among the many operations that may now be carried out with either the mouse or the keyboard. Protext really does give you the best of both worlds.

Protext 5.0 handles printer fonts flexibly and accurately. You can make full use of any number of proportional printer fonts, mix them freely within any line, centre them in headers, use automatically formatted footnotes. And Protext correctly formats your text as you type it, no matter how many font changes you use, showing you line and page breaks exactly as they will be printed.

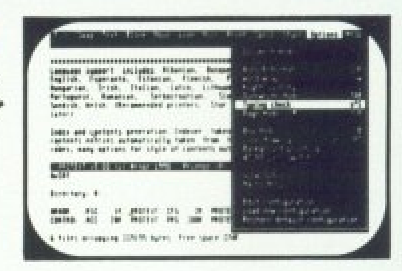
Protext 5.0 is still the fastest word processor around. Even though we have made all these major improvements we have taken great care to ensure that text editing is as fast as ever. The menus work smoothly and quickly even with high resolution displays. But of course, you can use Protext's efficient set of commands and keys just as before and 5.0 remains compatible with all earlier versions from 1.0 onwards.

Protext 5.0 is a worthy successor to version 4, which was described as "the best word processor at any price", "the best text processor on the Amiga" and "the most powerful word processor on the Atari ST" (AUI, ST/Amiga Format, ST User).

Protext 5.0 heralds a new era of multi-lingual European software, in time for 1992 and the opening up of Eastern Europe. Protext may be used in at least 27 different languages and has 10 different national keyboard layouts built in (plus the capability to define your own symbols and keyboard layouts).



The Features



- ☆ **New fast & easy to use pull down menu system** with dialogue boxes and alerts; file selector; mouse dragging to set blocks. Menus complement existing commands and keyboard shortcuts, do not replace them. Menus may be used with mouse or keyboard. Amiga version follows Intuition guidelines.
- ☆ **Enhanced printing capabilities** supports multiple proportional fonts; mixing of different font sizes on the same line; proportional formatting whilst editing; side margin, headers and footers independent of main text font. Tabs, decimal tabs and centre tabs. Extensive range of printer drivers supplied.
- ☆ **Multiple file editing** - up to 36 files may be open; split screen editing.
- ☆ **Graphics mode support** on PC allows use in virtually any text or graphics mode including 132 column or 75 line VGA modes; user defined characters and on-screen bold, italics and underlining now on all versions; use of 13 different accents on any character.
- ☆ **Language support includes** Albanian, Basque, Czech, Danish, Dutch, English, Esperanto, Estonian, Flemish, Finnish, French, German, Hungarian, Irish, Italian, Latin, Lithuanian, Norwegian, Polish, Portuguese, Rumanian, Serbocroatian, Slovak, Spanish, Slovene, Swedish, Welsh. (Note: some printers do not support all languages).
- ☆ **Index and contents** generation. Indexer takes marked words or phrases; contents entries automatically taken from titles wrapped in control codes; many options for style of contents output.
- ☆ **Spelling checker** features completely new 110,000+ word Collins dictionary with very fast phonetic lookup. Anagrams and find word pattern. Foreign language dictionaries (German, Swedish available now, others to follow).
- ☆ **Many other enhancements** including multi-line footnotes and endnotes; automatic timed save; add column or row of figures; indent tabs; find word at cursor; 40 column mode support; sentence operations; inter- paragraph space; much improved expression evaluator; self incrementing variables; Roman numerals; newspaper-style column printing; file sorting utility with special options for names and addresses; revised manual plus new tutorial guide.
- ☆ **And don't forget Protext still includes** background printing; box manipulation; macro recording; exec files; headers and footers; find and replace; mail merging; undelete; file conversion utility; configuration program; auto reformatting; on screen help; time and date; typewriter mode; line drawing; disc utilities.

Prices

Protext 5.0 may be purchased from any good computer shop or directly from Arnor. Upgrades from earlier versions are only available from Arnor and the original discs should be returned with your order.

	PC	Amiga	ST/TT	Archimedes
Protext 5.0	£149.95	£149.95	£149.95	£149.95
Upgrade from v4.2	£60	£60	£60	N/A
from earlier versions	£75	£75	£75	N/A
Protext 4.2	£99.95	£99.95	£99.95	N/A
Prodata 1.1	£79.95	£79.95	£79.95	due 1991 Q1

Notes:

Protext 5.0 requires at least 640K of memory on all machines
Protext 4.2 requires at least 512K of memory on all machines
Prodata requires 1MB of memory on the Amiga

ARNOR

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• THE MACHINES •

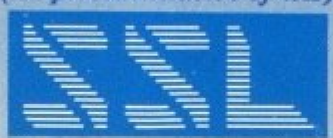
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THE COVERDISK

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Rollerpede: Game of the month is a good place to start if you're looking for quality games with a zero price tag, and this month's all-action effort is no exception. **Rollerpede** will keep you enthralled for weeks!

Treasure Island: Pit your wits against some cunning problems in this superb demo of the HatRack Adventure Generator

Musical madness!: We've gone bonkers! Not only have we packed **TWO** great tunes into this month's Tune-of-the-Month, we've also included some of the best **samples** you'll hear on any disk

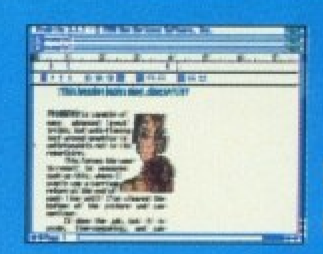
JMenu: Now you too can produce professional menus from a script file. JMenu does it all with ease and simplicity

ImageED and PasteGadgets: Use this excellent combination of utilities for complete control over your system gadgets. Ideal for programmers and those with the urge to customise

Encrypt: Protect sensitive files from prying eyes with this handy utility. Make sure you're the only one who can get to that electronic filofax!

ColourKwik: Capture the coolest colours for your Workbench and save them to disk with ColourKwik. No more messing about trying to match that perfect shade of blue – just click to save it out!

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COVER STORY

Money for nothing

Are the best things in life really free?

Paul Austin and Eddie McKendrick go in search of something for nothing and stumble upon the British Public Domain industry.

Read their conclusions on page 21

WHO'S WHO

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Amiga Computing is an independent publication and Commodore Business Machines (U.K.) Ltd is not responsible for any of the opinions expressed.

News trade distribution: Comag (0895-444055)

Europress Publications Ltd,
Europa House, Adlington Park, Macclesfield SK10 4NP.



Editorial: 0625 878888
Advertising: 0625 878888
Subscriptions: 051 357 2961 **Fax:** 0625 879966

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ALMANAC

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Something for everyone, every month, from the Amiga experts

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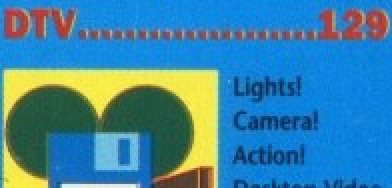
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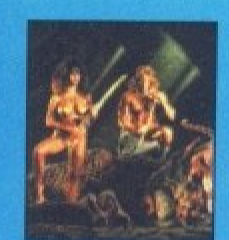
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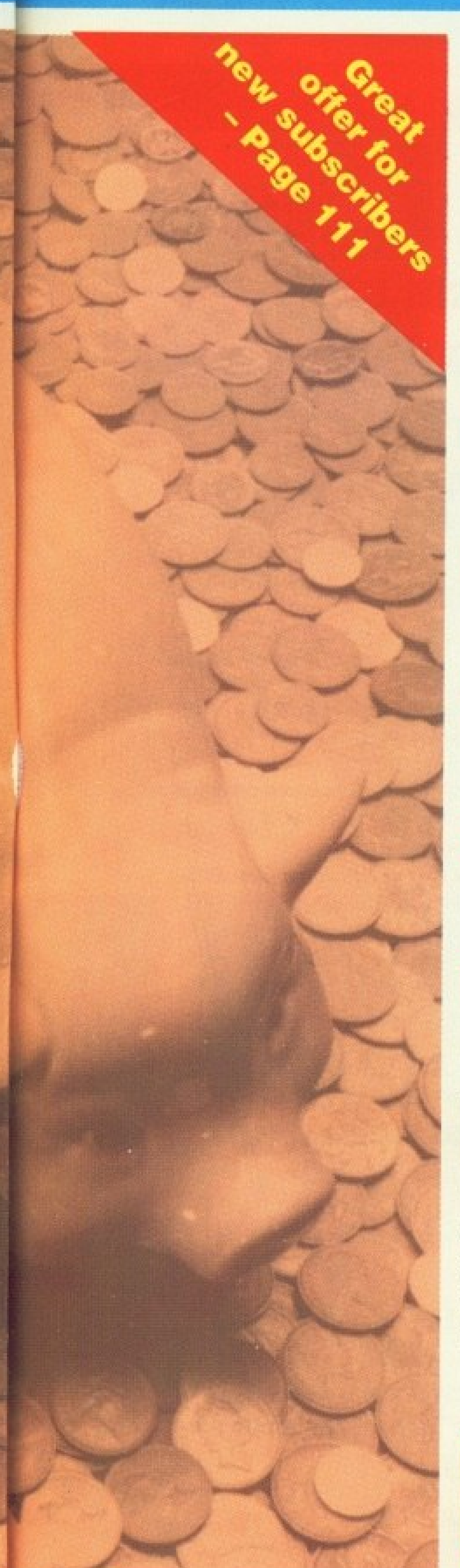


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DIENSION IN
R SIULATIONS



Raises the skills required and gameplay of KICK OFF 2 to new heights.

Two extra kits.
Look at any player stats. (attributes and skill) before selecting squad.

Totally new corner kicks with full control of the power, height and trajectory of the ball.

Enhanced throw ins and penalty shots.

Provision to flick the ball in the air and do a blinding header or a spectacular overhead kick.

New two players team mode. Player 1 in position or nearest to the ball and player 2 in position or keeper.

Linesmen and referee on the pitch.

A new player attribute FLAIR. A player with a high level of flair will try a solo attempt at the goal.

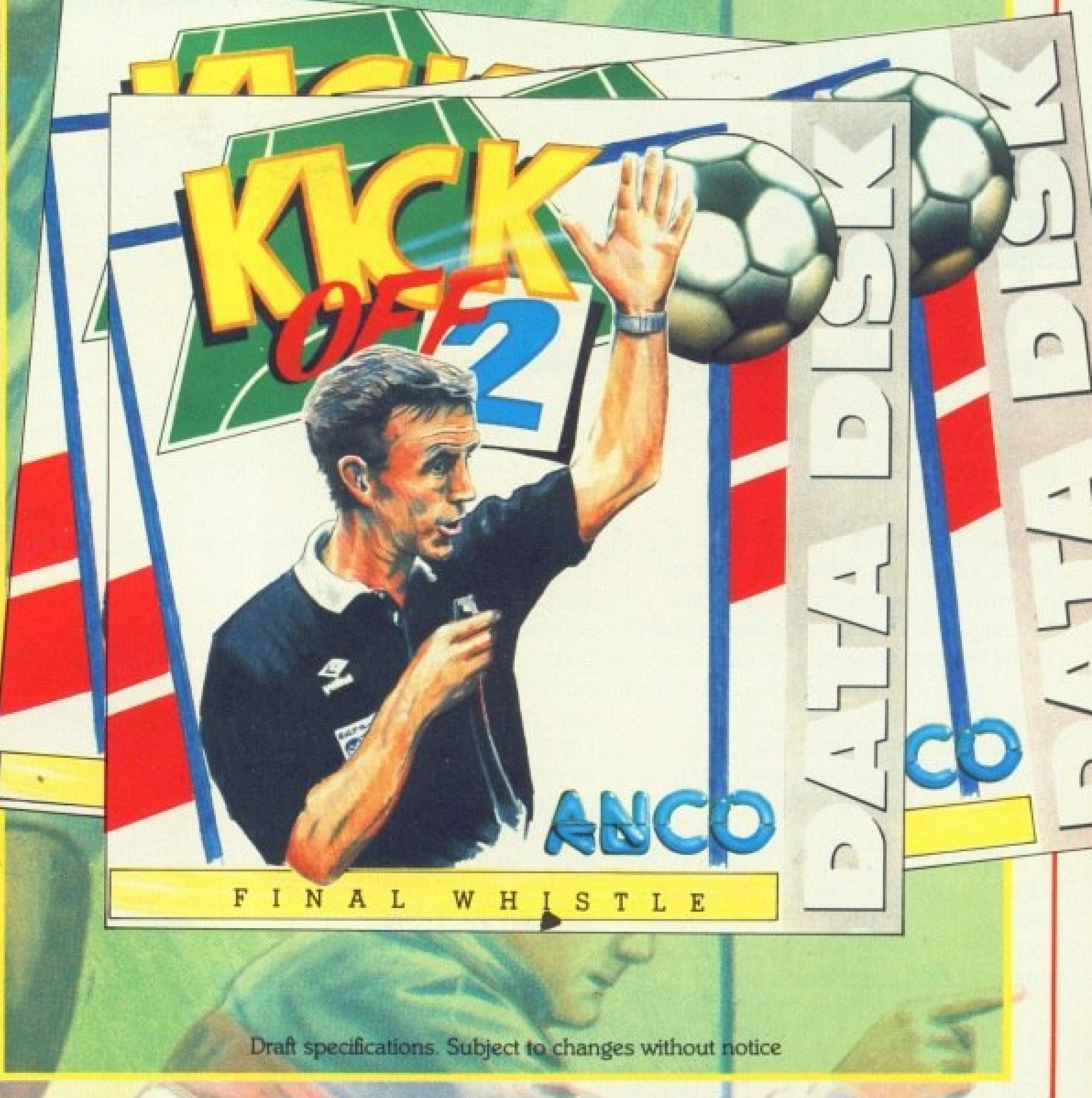
4 new pitches - Wembley - Icy - Muddy - Non-League

And Lot's More

WINNING TACTICS (£6.99 - Rel. Nov.) - A collection of tactics for use in Player Manager or KO2 with full explanations.
RETURN TO EUROPE (£9.99 - Rel. Dec.) - Three European cup competitions. UEFA cup - European Cup - Cup Winners Cup.
GIANTS OF EUROPE (Rel. 1991) Best teams of Europe on one disc.

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MEGATRAVELLER 1
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Heralded the American computer role-playing game of the year!
Based on Megatraveller by Game Designers Workshop, the world's most popular science-fiction gaming system.
The most sophisticated character generation system ever devised: five military classes, more than seventy talents and abilities. Allows player to control character development through five services: Army, Navy, Marines, Merchants and Scouts.
Twenty-eight planets and satellites to explore in eight systems filled with exciting puzzles, dangerous subjects and interesting characters to encounter.
"Megatraveller 1 is one of the best science-fiction role-playing games ever for the computer"
"Megatraveller 1, a game that truly warrants the highest level of praise, the attention to detail makes it exceptional"
(Quotes taken from Dragon magazine US and Quest Busters magazine US)
Amiga and ST implementations by STeVeN Green
STRATEGY
IBM PC SCREENS SHOWN
TAKES SCIENCE FICTION ROLE-PLAYING LIGHT YEARS FORWARD
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SO REAL YOU CAN SMELL THE SMOKE
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Team Yankee is the definitive action simulation of modern tank warfare.
"Team Yankee.... the critics' choice"
Team Yankee is designed to test your leadership and tactical skills to the quick.
AMIGA FORMAT
Team Yankee presents a game, in a sims clothing, which when dealing with tanks has to be the perfect approach!
ACE
The blend of thought and reflexes required to play Team Yankee is exactly right!
ST FORMAT
Hunting the Red Bear has never been so much fun!
You won't be able to tear yourself away from Team Yankee!
STRATEGY PLUS
This is a game and a half! The use of four screens in one is simply brilliant - at times it's almost like playing on four computers at once! I quickly found myself hooked on a genre of game which previously held no interest.
AMIGA ACTION
The tanks have been superbly animated, with great attention to detail! This has to be a must for everyone!
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WHAT'S new

CDTV – the wait is over!

Commodore finally stop crying wolf and unveil a CD player that thinks it's an Amiga, as Eddie McKendrick reports

MONTHS of speculation about Commodore's fledgling multimedia product CDTV are finally over. On Tuesday April 30 Commodore officially introduced their Dynamic Total Vision to the world.

Due to go on sale later this year with a price tag of around £700, CDTV is similar in appearance to a standard compact disc player, but it is capable of a variety of interactive leisure and educational applications.

With the CDTV, users will be able to simultaneously call up video images, text, graphics and stereo audio through a simple infra-red remote control unit.

The greatest potential for CDTV lies in the educational field where programs are being developed which exploit the machine's multimedia capability.

A Commodore spokesman explained: "You can call up a picture of the African bush containing a number of wild animals.

"Using the control unit you can then select one of the animals and up on screen comes a detailed picture with descriptive text and the sound of the particular animal or a commentary."

A pilot scheme underway with Derbyshire County Council is using CDTV to teach Japanese to local schoolchildren.

As well as hearing the spoken language, children are able to see pictures depicting Japanese culture. As no keyboard is necessary, CDTV can be operated by people with no previous keyboard experience.



CDTV exploits the technology of CD-ROM (compact disc read only memory) using discs with a storage capacity equivalent to around 720 floppy disks our about 250,000 pages of text.

Delivering the goods

Independent research commissioned by *Amiga Computing* has revealed that major High street outlets do not expect to have large stocks of Commodore's CDTV home entertainment system until October.

Despite the official launch our survey showed that CDTV is likely to be a slow starter with one retail chain expecting only small stocks by mid-May and others still in the dark about availability.

Information for the buying public is woefully inadequate. Under the guise of a customer keenly interested in buying CDTV, our researchers contacted approved stockists Dixons, John Lewis and Comet. Sales staff in one major Dixons outlet thought CDTV was "a sort of television" while staff at another branch asked: "Is it some kind of games console?" Neither had any knowledge of availability.

A third Dixons store said they had no idea when they would get CDTV but they would try and order it while the manager of a fourth outlet said: "We've got it in our price list but because of pre-production delays I don't think we will have it in stock until October."

> 'CDTV may be here as far as Commodore is concerned, but no-one has told the High Street'

A spokesman at Dixons' head office said: "We have no information on when this will be available but we hope it will be within the next month. We are just waiting for Commodore, but the price has been fixed at £599.99." Our researchers drew a complete blank at the John Lewis store in London's Oxford Street. Even when given a description of the new machine, a senior member of staff said they had no knowledge of it.

"It's not on our list for this half-year. Maybe we will have it next half," was the reply.

Over at Comet, staff in two retail outlets referred us to head office where a spokesman said: "We will have CDTV in some of our selected outlets by mid-May but we certainly do not expect to have it generally available until October.

It will cost £599.99."

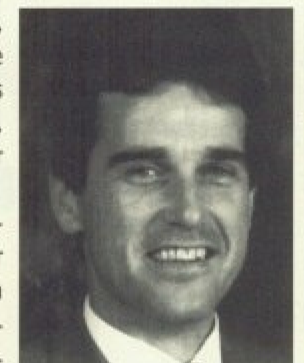
WHAT'S new

Amiga's in education go down a bundle

COMMODORE has escalated its assault on the education market by offering education authorities and schools the chance to buy an Amiga 500 and one of 14 software packages for £299 plus VAT – a saving of £100.

The offer has been made in response to education minister Kenneth Clarke's request for computer manufacturers to be competitive in their education pricing.

It includes a 500 with 1Mb of ram and a choice of Amiga Logo with Talking Turtle, DPaint II, DPrint II, Dpaint III, BBC Emulator, Fanta Vision, MaxiPlan 500, Superbase Personal, ProWrite 2.5, Music Mouse, Dr. T's Music Recording Studio, InfoFile, Photon Paint or Spritz.



To ensure that those taking advantage of the offer are bona fide education users, Commodore are dealing with all orders themselves – passing them on to accredited dealers in the appropriate area. "We are policing this offer very closely to make sure that the right people are buying the computers," said Commodore's national sales manager for education, Peter Talbot. "So far we have had tremendous response from the government right down to the schools themselves. We have a growing market share in education and there hasn't been an offer as keen as this one before". Commodore spokesman Andrew Ball added that in the first month alone, sales on the offer had totalled £250,000. Schools wanting to buy the package must provide either their DES number or an official purchase order and the offer closes on May 31.

"We have a growing market share in education and there hasn't been an offer as keen as this one before"

Peter Talbot

Further details can be obtained from Commodore's education sales desk on 0628 779677.

Smooth operator

ANTIA is a font enhancement utility which performs an anti-aliasing process on normal Amiga fonts.

From one original font size, it can produce up to nine scaled down versions, anti-aliased using four brightness levels.

AntiA runs on all Amigas. It can handle type sizes up to 300 points, although a 512k machine will be limited to sizes of around 200 points. A 68020/30 is useful in speeding up the processing of very large point sizes, but not essential. AntiA is available now at a RRP of £40. Contact ZEN Computer Services on 061 793 1931

24 bits on the side

AMIGA screen files can now be converted into 24 bit colour slides or film of full cinema quality thanks to a new development from Amiga Centre Scotland (031 557 4242).

Cine Link is a module for use with the company's Image Link package, now re-christened Rastar Link. It drives a number of digital film recorders, allowing Amiga files to be transmitted to them via the SCSI port.

They are then converted into 2,000 or 4,000 line resolution pictures. Cine Link can also be teamed with a cine camera to produce cine film animations in up to 4,000 line resolution and full 24 bit colour. As *Amiga Computing* went to press, the price of Cine Link was not definite but should be in the region of £230. Raster Link costs £155. This provides all the software necessary for the conversion but the real shock to the wallet comes with the purchase of digital film recorders which can run into thousands of pounds.

Under the Spell

SPELL!, the computerised aid to spelling that is now selling in record numbers to Amiga users, has found a new fan – Minister of Education Tim Eggar.

He has written to Nicholas Winterton MP, another admirer of the program: "The Government welcomes such initiatives as a way of raising standards in our schools."

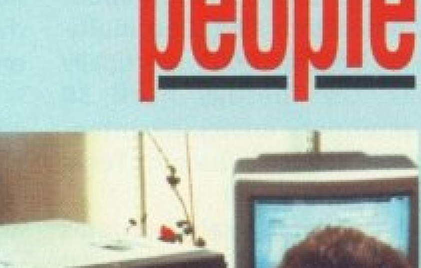
And he added: "The Secretary of State is concerned at the perceived decline in the standard of spelling among young people and is keen that everyone in the world of education should take serious steps to improve those standards. Good spelling is essential in all branches of knowledge".

Spurious price cuts

FOLLOWING reports of price cuts for top-end Amigas in the USA, Commodore UK spokesman Andrew Ball has discounted suggestions that the same could happen on this side of the Atlantic.

He told *Amiga Computing*: "These are just spurious rumours."

The American price cuts take in both Amiga 2000 and 3000 ranges and vary from 10 to 26 per cent.



The Lowe down on ACS

MANAGING director Martin Lowe reports that Amiga Centre Scotland have embarked on a substantial change of direction. They are now concentrating on developing low-cost advanced technology for business, television, the professions and education.



Martin Lowe

"We intend to provide an environment where a business or education customer can be shown a complete range of computing hardware and software, where they can examine and try our equipment and where technical requirements can be identified and satisfied," he told *Amiga Computing*.

"Too few people and corporations in the UK are aware of the power and price advantages of using the Amiga system. A fully-implemented version of AT&T Unix System V, release 4, is now available on the Amiga. Internationally, many broadcast and video professionals have already discovered the Amiga."

The validity of his decision was underlined by the successful appearance of AMS's 32-bit graphics board at top European computer show CEBIT where it attracted interest and orders from 40 countries.

"Commodore displayed four of our boards on their trade stand," said Lowe. "Japanese company Sharp also showed the Harlequin/Amiga combination displaying images captured with their top of the range scanners.

"Software developers in Europe and America are already producing programs to take advantage of our technology."

Features in previous issues of *Amiga Computing*, the Harlequin board substantially reduces the cost of generating broadcast quality, full colour images with an Amiga.



CITIZEN PRINTERS

Silica presents some great offers on the award winning range of high quality dot matrix printers from Citizen. Each Citizen printer is built in the UK to exacting standards, ensuring superb reliability and a very high quality of output. Our confidence in the quality of Citizen printers is such that we are pleased to offer a unique two year guarantee with every printer. Plus, if you purchase your Citizen printer from us, we will give you a Silica Printer Starter Kit (worth £29.95), *FREE OF CHARGE!*

FREE DELIVERY
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FREE HELPLINE
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Citizen printers are manufactured to high standards.

144 CPS DRAFT 9 PIN



CITIZEN 120D+

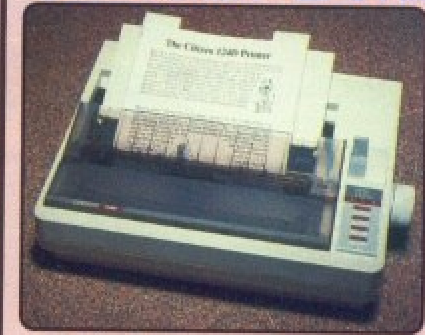
The Citizen 120D+ is one of the UK's best selling printers. It has a stylish appearance and excellent features and performance for such an inexpensive printer. The 120D+ is available with either a serial or parallel interface and is an ideal first printer.

- *9-pin Printhead*
- *Print Speed 144cps Draft*
- *30cps NLQ*
- *Epson & IBM Graphics Emulation*
- *Pull Tractor & Bottom Feed*
- *Superior Graphics - 240×216dpi*
- *FREE Starter Kit*

RRP	£233.83
STARTER KIT	£29.95
TOTAL RRP:	£263.78
SAVING:	£112.20
SILICA PRICE:	£151.58

£129 +VAT = £151.58

144 CPS DRAFT 24 PIN



CITIZEN 124D

The award winning Citizen 124D brings high quality 24-pin dot matrix printing within every computer users reach. It is the ideal choice where high quality printing is required at a budget price.

- *24-pin Impact Printer*
- *Print Speed 144cps Draft*
- *2 LQ Fonts (48cps)*
- *8K Buffer*
- *Epson, IBM & NEC P6+ Emulation*
- *Advanced Paper Parking*
- *Superior Graphics - 360×360dpi*
- *FREE Starter Kit*

RRP	£292.58
STARTER KIT	£29.95
TOTAL RRP:	£322.53
SAVING:	£112.20
SILICA PRICE:	£210.33

£179 +VAT = £210.33

192 CPS DRAFT 9 PIN



SWIFT 9 - COLOUR!

The Citizen Swift 9 is perfect for those who require high quality dot matrix black or colour printing at a budget price. The print quality of Swift 9 rivals that of other manufacturer's 24-pin models.

- *9-pin Impact Printer*
- *Print Speed 192cps Draft*
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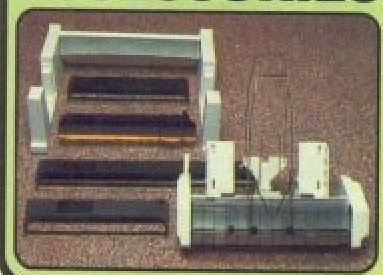
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Home Finance Program By Peter Veale.

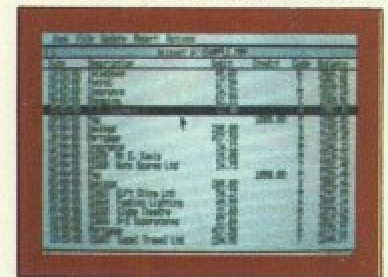
Amiga Version by Dan Lennard.

Here's what the critics say:

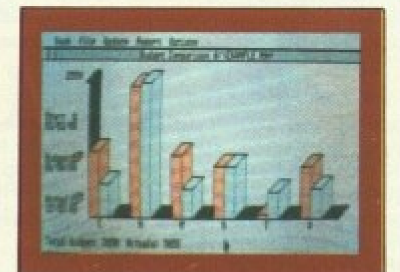
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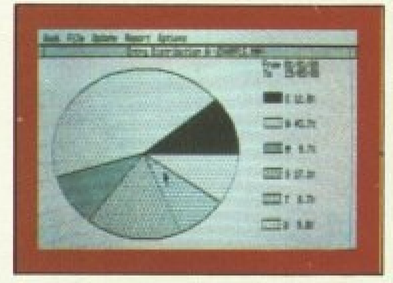
"PFM is just the ticket if your expenditure is as disorganised as mine."
POPULAR COMPUTING WEEKLY.



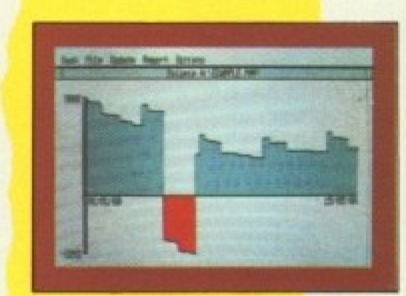
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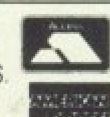
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Games galore, but serious VR was the real draw

It was a case of games nearly all the way at the European Computer Trade Show, but Richard Williams managed to find the more serious side, too

EUROPEAN COMPUTER TRADE SHOW '91

WITH a name like the European Computer Trade Show, you would have thought the number of different kinds of software and hardware on show at Islington's Business Design Centre would have been legion.

You would have been wrong.

The order of the day – or rather the order of the three days from April 14 to 16 inclusive – was games, games and more games.

True, there was the odd bit of hardware – though mostly joysticks, to aid the playing of games, and mice, which in many cases serve the same purpose — and several purveyors of educational and music software were in evidence.

But in the main, games reigned supreme.

How strange to have to report, then, that the stand which had the most visitors queueing up was NOT organised by a games outfit.

It was a virtual reality demonstration from Divison, a company based in Chipping Sodbury, near Bristol, and which is involved in the more serious side of VR.

Although consistently well populated, even the Psygnosis hospitality suite, with those inevitable, loveable little Lemmings everywhere, could not raise the same amount of visitor interest.

Division's main claim is that it has made VR a practical proposition. It has done this by creating the hardware and software that has moved this leading-edge area of technology away from being an expensive laboratory plaything to a product that can be quickly integrated into any application which generates real time images.

I must confess I didn't actually get to don the eye-set for a demo, the queues being too long. But I did manage a word with one of Division's directors, Steve Ghee, who told me the company was pushing itself at the research market. The idea is that Division provide the hardware and software with which the customer can write their own pieces of VR using a high-level language like C. Most other companies involved in VR are working on specific games.

One of Division's customers is the Advanced Robotics Research Laboratory in Salford, Manchester. The ARRL is putting together an advanced robotic control system, in which a robot is linked electronically to a human, and the robot "learns" all the actions performed by the person. The human hears and sees exactly the same things as the robot.

Steve Ghee says it is very, very hard to build an intelligent machine. But by using VR to put a human into the loop, you can teach a robot how to do certain things very quickly.

Anyone thinking of contacting Steve or his colleagues at Division for a quote on a bespoke system had better consult their bank manager first. The kind of system being used in Salford costs more than £50,000, the eye-set and the electronic glove being the most expensive parts.

But there's hope. A system Division will be releasing in August will cost £10,000,and Steve says costs will continue to tumble until VR becomes de rigueur for all self-respecting home computer fanatics - and not just the game players!

What are the chances of Division-style VR on the Amiga? "You can actually attach our box to the Amiga, and use the Amiga joystick to control things," said Steve.

Hi-Tec sign up Bugs Bunny and Co.

HI-TEC Software used the ECTS platform to announce a prestigious signing with a major cartoon company.

The company has signed contracts with giants Warner Bros, throwing open the flood gates for a host of popular cartoon stars to appear on computer software.

The characters made world-famous by Warner Bros over the years include Bugs Bunny, Daffy Duck, Elmer Thudd, Sylvester and Tweetie.

Hi-Tec has already achieved success with characters from its other major licensee, Hanna Barbera.

Cheetah and the Tortoise...

THE results of eighteen months of research and development appeared on the stand of joystick manufacturer Cheetah.

Visitors encountered what Cheetah described as "the new generation of joystick technology".

Cheetah is renowned for helicopter-style hand-grip sticks, and after conducting extensive research designed a new and innovative range of controllers.

The Bug is claimed to be "the most comfortable controller available", sitting snugly and neatly in the palm of the hand, ensuring long-term playability. The Tortoise is a green, ergonomically shaped model whose shell acts as the directional movement control. Aeroskate operates in the same way as a conventional skateboard. except that it connects to your games system or computer.

Stick X's control handle sits comfortably in the palm of the hand for long-term play, detecting the slightest movement of the hand to different directions. Finally, the Turbofighter is a two-handled Yoke with multi-directional control, including forward and back movement. It comes complete with analogue and digital interfaces.

New software promised for Phazer

TROJAN, manufacturers of lightphasers for use with the Amiga and other computers, and who also make lightpens for use with the Amiga and Amstrad PCW, with Atari ST/STE and PC versions coming soon, used the show as platform for the announcement that it has established its own software house.

The idea is "to ensure a continuing supply of quality software" to support its products.

Trojan promised new titles for all formats of Phazers would be released at regular intervals during 1991 and beyond. Imminent releases are The Enforcer, Aliex and Fire Star.

Trojan lightphasers and lightpens each carry a rrp of £39.99.

Show launch for scanner and rodent

A NEW scanning package for the Amiga, and a new mouse which can be used with the Amiga or Atari STs, were launched at the show by Pandaal Marketing Ltd (0234 855666).

The DAATAscan Pro complete graphic scanning package features ➤

WHAT'S new



105mm scanning width, resolution from 100 to 400 dpi, choice of black and white or three dither patterns representing 64 grey scales, contrast control, real-time scanning display, zoom and pixel perfect editing, clipboard feature, ability to crop, rotate, flip and invert images and full printer support.

The DAATAscan supports the IFF file format, and is available now at an RRP of £189.95 including VAT. The ultra-high resolution 360 dpi DAATAmouse includes a slider switch located underneath which is used to choose between Atari and Amiga operation.



Pandaal claim the two micro-switched buttons of the DAATAmouse have a lifetime of a million cycles. The anti-static lightweight ball runs smoothly on most surfaces and can be removed for cleaning. It's available now at an RRP of £34.95.

AMOS gets turbo charged

THE AMOS Compiler – the turbo booster for the 40,000-selling AMOS write-your-own-games program – was the big news from Europress Software, the new name for Database Software as of May 1.

Europress said the Compiler would be on sale from May, and would more than double the speed of AMOS programs. Some commands are seven times faster once compiled. Europress were also plugging AMOS 3D, which allows Amiga owners to create 3D objects and manipulate them in real-time, ideal for creating games like Starglider and Inter-phase. And the next phase of the Fun School educational series for children, Fun School 4, is well under way and should be launched in the autumn. It will be sold alongside Fun Schools 2 and 3, and will offer six further programs across three age groups, all in line with National Curriculum guidelines. The Fun School series accounts for a staggering 79.6 per cent of all educational software sold by computer retailers according to independent market research commissioned by Europress Software. Managing director Chris Payne said more than a quarter of a million Fun Schools had been sold and dealers were convinced the range would continue to sell for years to come.

Fun School Development team: Chris Payne (right), Ric Vanner (left), and Peter Lee (top right)

Contriving to cover Europe

CONTRIVER Europe Limited chose the occasion of the ECTS to announce that it is poised to launch its European distribution network.

The firm's products, which are made in Taiwan, include a wide range of mice, joysticks, disk boxes, mouse pads, printer stands and other accessories. Managing director Adolfo Giannini said Contriver's intention was to continue its competitive pricing policy while maintaining the highest possible standards.The company was busy evaluating potential distributors for the contriver range throughout the whole of Europe.

Lemmings walk it in leisure awards

AN alternative name for the European Computer Leisure Awards, awarded and presented during the ECTS show, might well be the Psygnosis awards, juding by the number of honours picked up by the games manufacturer already on a high with the runaway (no pun intended) success of Lemmings.

Psygnosis picked up the prizes for Computer Game of the Year (Lemmings), Most Original Game (Lemmings), Best Graphics (Shadow of the Beast II), Best Sound (Shadow of the Beast II), and also took the Software Publisher of the Year prize.

Anyone who is wondering whether Lemmings deserves its success should have seen how visitors who had not seen it before were immediately captivated on visiting the Psygnosis hospitality suite and getting some hands-on experience of trying to lead the little lemms out of peril.

The "biggie" award from the point of view of Amigaphiles was obviously the one for Home Computer of the Year, won by Commodore for what else but the Amiga!

Commodore also won the Multimedia Package of the Year title for Amiga Vision.

Other awards were:

Best Animation – Dragon's Lair II (by ReadySoft Inc); Best Action Game – Turrican (Rainbow Arts); Best Adventure/Role Playing Game – The Secret of Monkey Island (LucasFilm); Best Mind Game – Klax (Domark); Best Packaging – Ultima VI (Origin); Best Simulation – F-19 Stealth Fighter (Microprose); Console Game of the Year – Tetris (Nintendo).

In the Non-games/Technical Excellence Categories, besides the two Commodore successes, awards were:

Best Art Package – Deluxe Paint III (Electronic Arts); Best Music Package – Bars and Pipes (Blue Ribbon Soundworks); Best Home Eduction Package – Fun School 3 (Europress Software); Best Home Productivity Package, Microsoft Works (Microsoft); Most Innovative Peripheral – Video Toaster (Newtek); Multimedia Package of the Year – Amiga Vision (Commodore).

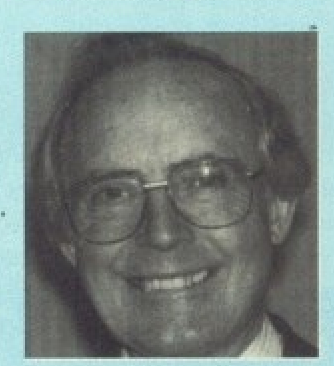
Amiga Computing was one of the official sponsors of the awards.

Amiga Computing goes Euro



Amiga Computing, launched by Database Publications in 1988 and which last year moved to Interactive Publishing, is now to come under the banner of Europress Publications Limited. This is a result of the restructuring of all companies within the Europress Group.

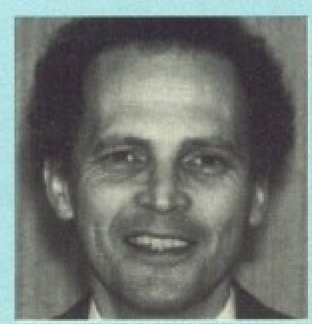
The magazine has been managed by Interactive Publiishing, for the last fourteen months. Interactive was formed as the result of a historic deal between Gollner Publishing and Database Publications. Now all magazines published by the group will be united under one name. Chairman Derek Meakin, who founded the group 21 years ago, said: "With the creation of new subsidiaries in recent years, all with different names, there was a growing danger of the parent group losing its identity. From now on all companies forming part of the group will appear under the Europress banner". Richard Williams has been appointed publisher, with responsibility for both *Amiga Computing* and *Atari ST User*. The *Amiga Computing* editorial line-up comprises Eddie McKendrick (Features Editor) with Stevie Kennedy (Technical Editor) and Paul Austin (Deputy Features Editor). The art department is headed up by Mike Bailey (Art Editor).



Derek Meakin

Behind the scenes, key *Amiga Computing* personnel are Jane Conway (Sales and Marketing Manager), Tracy Carroll (Advertisment Manager), Simon Lees (Advertisment Sales), John Burns (Circulation Director) and David Wren (Circulation Manager). Richard Williams said: "With a new company structure and more staff we are in an ideal position to make *Amiga Computing* even better value in terms of editorial content and free disk programs. It will also boost our already great advertising power." Europress Publiications also produce *PC Today*, *The Micro User* and *Let's Compute!* Other companies within the Europress Group include Europress Interactive (*Amiga Action*, *ST Action*, *Games-X*), Europress Software (Formerly Database Software & Mandarin Software) and Europress Trade Publications (publishers of *Computer Trade Weekly*).

Michael Meakin becomes Managing Director of the group's holding company, Europress Ltd, with Tim Roberts promoted to group financial controller.



Richard Williams



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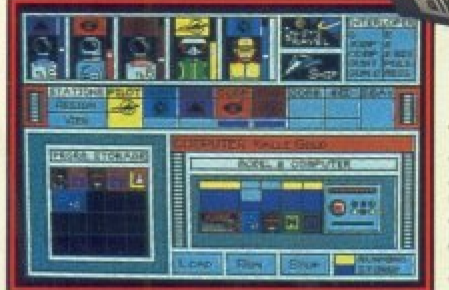
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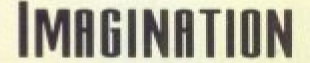
VERSATILITY

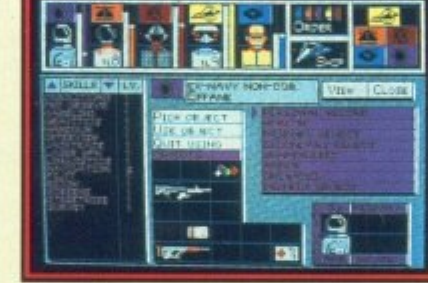
The most sophisticated character generation system ever devised: five military classes, more than 70 talents and abilities. Allows player to control character development through 5 services: Army, Navy, Marines, Merchants and Scouts.

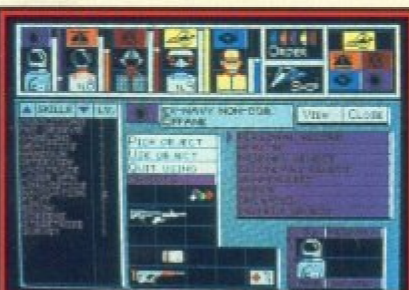


IMAGINATION

Flexible gaming system supports any playing strategy and allows multiple solutions to problems and obstacles.







FIREPOWER

Realistic, combat sequences let you control each of your characters individually, while still giving general combat orders to the other members of your party. Utilise more than 30 weapons and skills in this advanced combat system.

72 varied skills to learn and use including medical, piloting, communications, laser weapons, bribery, demolitions and handgun.

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28 planets and satellites to explore in 8 systems filled with exciting puzzles, dangerous subplots and interesting characters to encounter.

"MegaTraveller 1, a game that truly warrants the highest level of praise, the attention to detail makes it exceptional!"



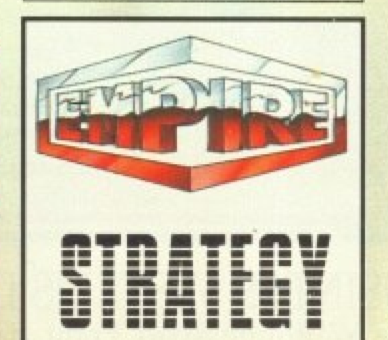
RESOURCEFULNESS

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Supports Ad Lib Music Card and Real Sound for state-of-the-art musical score, digitized speech and realistic sound effects.



"MegaTraveller 1 is one of the finest role-playing computer games in at least the last three or four years."

"MegaTraveller 1 is one of the best science fiction role-playing games ever for the computer."

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WHAT'S new

Although Commodore gave most of its space to PCs, it was....



A far from it-CeBIT-sy event for the Amiga

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CeBIT '91
World Center ·Office ·Information ·Telecommunications·
13 – 20 MARCH 1991

Donald Maple mit der news und der views from CeBIT '91 in Hanover

Here we go again! In case you don't know it, the springtime CeBIT show held in Hanover, West Germany, is the largest computer exhibition in the world. More than 4,500 exhibitors from 41 countries, spread over some 20 halls covering nearly 300,000 square metres, showed their wares to a crowd of around 600,000 visitors. The exhibition grounds are so big that, in addition to its own train station, CeBIT provides a free bus service for visitors and a free taxi service for journos. Impressed? (Yeah - sounds almost as good as Birmingham's NEC! - Ed).

Commodore is very popular in Germany so it's no surprise to learn that it has always been well represented here.

PRESS HERE!

COINCIDING with the 20th anniversary of Commodore Germany – the parent company will celebrate 30 years in two years time – Commodore's international annual press briefing was a very professional affair.

"This press conference presentation was created using the Amiga 3000 so you can see what this product can do in real life," said Helmut Jost, the new boss of Commodore Germany.

He was joined by Irving Gould, the chairman of the board and chief executive officer of Commodore in the U.S.

But before we get to meaty stuff, a few figures. Commodore continues to show healthy growth and, compared to last year, the most recent six months' sales increased by 23 per cent and net profits jumped NINEfold to $44 million. But the best financial news is that with more than 50 per cent the Amiga continues to dominate.

Europe still accounts for 85 per cent of total sales and Germany is again the single largest world market.

Because of this Commodore is building a new factory in Braunschweig, Germany – all Commodore machines sold in Europe are already manufactured there.

The C64 is still selling well in spite of it being declared dead five years ago. In Germany alone C64 sales jumped from 108,000 to 180,000 mainly due to East Germany.

And the icing on the cake is that after reaching the 1,000,000 mark in the spring of last year Commodore sold its 2,000,000th Amiga in November.

Show highlights

OK FOLKS, you waited long enough. The big news, of course, is the European premiere of CDTV which, contrary to popular misconception, actually stands for "Commodore Dynamic Total Vision".

CDTV is basically a 1Mb keyboardless Amiga with a CD-ROM drive and remote control.

Known internally within Commodore as "the baby" it will start shipping to selected markets in the U.S. and Europe this spring. CDTV was to be available in Germany in May at DM 1500 (just over £500).

CDTV is not TV format specific and can be used with both PAL and NTSC.

A "smart card" is used for storage so when the machine is turned off the settings are retained. CDTV can also play "regular" audio CDs.

"From the moment you turn it on and insert a CDTV disk you are involved immediately in the content of the application, not in operating the machine," said Irving Gould.

He continued: "Some of the world's leading software and reference companies including Guinness, Lucasfilm, Disney and the big European software houses are working on CDTV titles."

The reference titles include among others World Vista Atlas, the fully illustrated Grollier encyclopedia and the King James Bible.

CDTV is also ideal for high quality arcade games and entertainment titles. Because CDTV delivers music, video, text, graphics animation and interactivity its application is virtually unlimited.

A few examples are multimedia courseware, libraries, point of sales presentations, product demonstrations and staff training.

While CDTV is "multimedia for the masses", Amiga 3000 is high end multimedia. However, the latter has also got some new clothes.

Namely, Commo-dore is branching out into Unix with the "Amiga 3000 Tower" envisaged as a Unix server and the "Amiga 3000 UX" which runs the latest AT&T Unix System 5 Release 4.

The Tower Amiga has five 32-bit and three 16-bit slots. ➤

WHAT'S new

HANNOVER MESSE CeBIT '91 World Center · Office · Information · Telecommunications 13 - 20 MARCH 1991

The motherboard also has a 200-pin CPU slot. In contrast to the Amiga 3000, the Tower has the four Zorro III slots on the motherboard and not on a separate card. The video system has its own slot called VDE - Video Display Enhancer. A SCSI port is also included on the motherboard.

The heart of the machine is a 25-Mhz 68030 assisted by a 68882 floating point coprocessor. 3Mb of RAM comes as standard of which 2Mb is fast RAM.

Using 4 Mbit chips this can be brought up to 18Mb. The machine is supplied with either a 100Mb or 200Mb hard disk with access time of 19ms.

The graphic resolutions range from 320x256 to 1280x512 and are backward compatible with all four previous Amiga modes.

A "flicker fixer" chip comes as standard. On the software side the Tower is delivered with "Amiga-Vision" authoring system and the Unix version can communicate with other machines via an Ethernet card.

For DOS masochists among you Commo-dore also introduced its fourth generation of machines which to date this year include nine new PCs such as slim-line, notebooks, desktop and towers featuring 286, 386 and 486 processors.

Hands on...

Now that we're all charged up let's lay our grubby little hands on some real hardware. The Commodore booth was composed of three stands: a tiny home computing stand, an Amiga stand and a PC stand.

The professional focus was clearly reflected in how the total area was divided.

The PC area was twice as large as the other two combined! In spite of this division being the same as last year it nevertheless seems contradictory to Commodore's statements that the Amiga is the main platform and that it outsells the PCs by a large margin. In contrast to last year's "wall of multimedia video" the Amiga stand this year was dominated by a "wall of CDTV" – a room size multi-screen display running CDTV demos. Oh yeah, the stand also contained a car. A what? No, really! A regular size car whose controls were connected to an Amiga and used in a competition.

The competitors then "drove" the car and watched the monitor on the wall in front through the windshield. OK, it may not be virtual reality exactly but it comes close...

Let's party with Third Party!

"Delta-Base", distributed by Delta Konzept at 01049-2159-81007 (that's Germany you're calling so, don't make that call too long now!), is a multidimensional data base written by Chris M. Muench. The program is very sophisticated and after setting the initial parameters doesn't require the user to set the field definitions.

In addition to supporting multiple users, Delta-Base has one or more Supervisors who are responsible for setting the parameters and structures and manage user access. Delta-Base runs on both the Amiga and the PC and is looking for a distributor in the UK so call Germany on 01049-711-3454285 if you wish to become one.

Videocomp, responsible for the aforementioned "wall" of video last year, are well known here for endowing Amigas with Transputers and interfacing them with high-end professional video hardware.

This year saw the introduction of DVE-10, an all-in-one device combining digital effects, a video processor, audio and video mixers, a fast digitiser and a Genlock interface.

Merkens EDV introduced "VD 2001", a 24-bit real time digitizer and frame buffer. Originally developed in Austria the device sports a plethora of features such as ARexx support, works with a number of picture formats, overscan, mask editing, brush handling, picture blow-up and reduction.

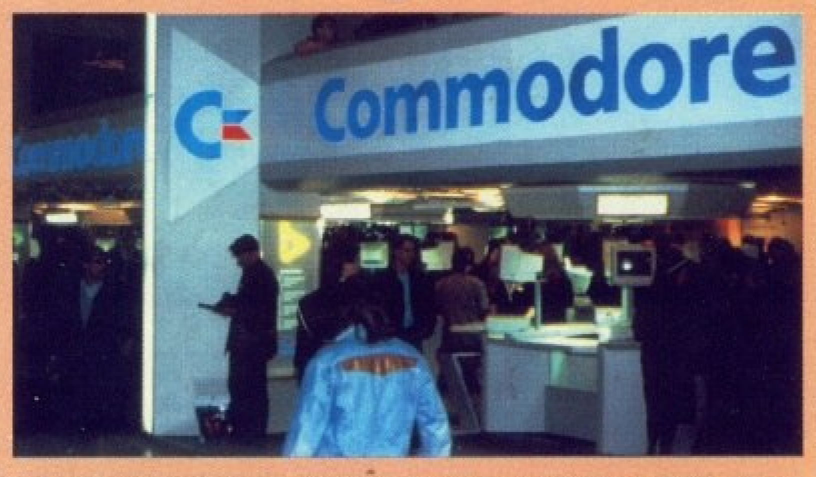
The price in Germany is DM 3998 (about £1,500). Merkens is at 01049-6196-3026 while the UK distributor is G2.

"MXM-Chart" from MXM is a stock exchange analysis program. In addition to fast processing of data and creation of various graphs the program can also directly grab data from Videotext (the German equivalent of Teletext). The program version 1.00 lists for DM 349 (about 125 pounds). For more info call 01049-511-446376 (that's Germany again).

"Funlab" – a joint effort by Commodore, Kawai and Steinberg – is a complete MIDI system incorporating both hardware and software. Introduced here last year, Kawai supplies the 61-key synthesizer which is actually an FS-680 with a few additional interfacing features.

The 13-note polyphonic synth comes with 100 presets (five software modifiable), an on-board sequencer and a built-in rhythm machine with 100 different patterns.

Steinberg custom wrote the software which is Funlab specific and



will only work with this synthesizer. The main feature of the package is "one finger ad lib", where the user selects the rhythm, presses one key and the synth does the rest.

The rhythm selection determines the notes in the automatically created tune but these notes can also be defined by the user.

Funlab also sports a disk based "juke-box". New this year are more "juke-box" disks, each with up to 10 songs and including written notation.

Maxon demonstrated their "Maxon-CAD" program with a special Turbo-version for the Amiga 3000. The prices are DM 249 (about 90 pounds) and SM 449 (about 160 pounds) respectively. Both versions support the CRP graphic tablet and work in resolutions from 640x256 to 1024x1008.

Maxon will answer your call at 01049-6196-481811 (Germany).

FEET Computer (yup, that's what they're called!) offer a complete digitizing solution for all Amiga models. ARISTOTAB, developed by ARISTO, is the digitizer while FEET Computer wrote the driver which controls the mouse and does scaling and rotation as well.

Use your hands and call FEET at 01049-40-7427081(Germany).

Einar Kretzler demonstrated three products: Video-imaging for architectural landscape simulations in CAD images, 3D-Simulation for creation of realistic models and Video-Presentation.

Call 01049-451-36112 (Germany) for more info.



news

THE MAGAZINE FOR AMIGA PD ENTHUSIASTS

George Thompson Services
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'Mandelbrot & Fractals Set I' for May
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What is Public Domain all about? You've seen the programs but do you grasp the concept? Paul Austin and Eddie McKendrick get public spirited on your behalf

Money for nothing?

The Concise Oxford Dictionary defines "Public" as "open to or shared by all the people" and "Domain" as "an area under one rule." Gel these two definitions together and you have a fairly good iteration of what Public Domain software is all about.

The driving force behind Public Domain is a sense of enthusiasm for the widest possible development and enjoyment of computers. This conflicts sharply with the commercial ethic of identifying computing as a market within which money is the motivator and profit the prime concern.

Originally, most PD programs were written by people who needed their computer to do something that an off-the-shelf package couldn't cater for. Having put effort into producing the software, it made sense to release it to as wide an audience as possible.

It was this type of software which established the PD distribution channels now used to dissipate everything from professional quality productivity software through to scrolling vector-ball demos.

The fundamental concept behind Public Domain software is that it is intended to be entirely free. More and more these days, this principle seems to be lost. This is especially true with the larger libraries as they have grown over the years.

Growing up

The Public Domain industry has evolved from a small enthusiasts' haunt into a fully fledged industry, servicing the ever growing number of Amiga owners eager to get bargain priced

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R7 Pacman 87
R8 Breakout Construction Set
R9 Pseudo Cop (Shoot em up)
R10 Holy Grail (Text Adventure) ★
R11 Golden Fleece (Text Adventure)
R12 Hack the Classic D + D Game
R13 Sionix (Super Shoot em up) ★
R14 Fish Games (5) (The best from Fred Fish)
R15 Battle Force (Strategy game)
R16 Bull Run (Civil war)
R17 Moria (D + D game)
R18 Tennis ★
R19 Games Pack 1. Arcade games
R20 Games Pack 2. Arcade games

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R22 Clerk
R23 Visicalc (Spreadsheet)
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R29 Jazz Bench
R30 Quick Base
R31 Ultimate Virus Killer
R32 Ultimate Utilities 1
R33 Credit (Text editor)
R34 Icon Magic
R35 Cli Tutorial
R36 Virus X
R37 Amiga Fox
R38 Trooper Fonts (3) (D Paint etc)
R39 C Manual (3)
R40 Utility Disk Set (10)

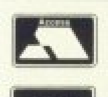
MUSIC
R41 MED
R42 Soundtracker Inst Set (10)
R43 Soundtracker
R44 Noisetracker
R45 Sonix Instruments + Music (10)
R46 Bart Simpson (3)
R47 Amazing Tunes 2 (3) Brilliant ★
R48 D Mob 4 (Brilliant)
R49 Star Trecker
R50 Crusaders Bacteria
R51 Rebels Megablast
R52 Crionks Neverwhere
R53 Sounds of Silents
R54 Games Music Creator
R55 Pet Shop Boys
R56 C Bit 90 (Brillliant) ★
R57 808 State Remix

DEMOS
R58 Budbrain 1 (2) Over 18's
R59 Budbrain 2
R60 The Run (Amazing animation)
R61 100 C64 Tunes
R62 Mental Hangover
R63 Fraxion Horror (Sick!)
R64 Kylie Demo (2)
R65 Blues Brothers (2)
R66 RAF Mega Demo (2)
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R69 Puggs in Space ★
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R71 Viz Slide Show
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R73 Walker Demo 2 ★
R74 Cool Enough ★
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M049 Ben Elton (XXX) - Very Funny
M055 Get Up - Mega Cool Long Sample
M064 Sound Atax 2 - Cool Disk Full
M070 Scoopex Shadow Music - Get It!
M075 100 C64 Tunes - Nice
M093 P.E. Module Comp 24 (1 Meg) - Cool
M094 Vision Music Masters - Well 'Ard
M112 Jarre Revolutions - Check It Out!
M114 Betty Boo! - Just Doing the Do!
M125 RAF Megamix 2 (2 Disks) - Brill
M127 Amiga Chart Mix 6 - Mega Cool
M134 Miami Vice (4 Disks) - Er... Long!
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The dirt on the domain

The world of Public Domain has been gradually gaining a reputation not too dissimilar to that of a used car salesmen.

Yes, I know I'll receive hundreds of irate letters from furious used car salesmen threatening litigation for being compared with a business which is as notoriously dodgy as PD, but nevertheless it must be said.

The problems with the Public Domain usually arrive with the fly by night elements that set up overnight and go bust almost as quickly, leaving punters in the dark and invariably out of pocket.

The only real way to avoid the Arthur Daily element is to check out their ads in respectable magazines and make sure they're well put together. If possible check a few back issues to see if they regularly appear in the advertisers' index.


Another classic demo

software. A good example of the speed and scale of development is provided by one of Britain's bigger libraries, Wakefield based 17-Bit software.

Back in February 1988 they boasted a library of 40 disks. Now they are approaching the 1,500 disk mark. Things haven't stabilised yet, the library is still growing at an impressive rate.

Looking at 17-Bit now, it is difficult to retain perspective and keep sight of the original PD ideals.

The organisation occupies its own offices with five staff looking after the needs of over 19,000 members. There is no disputing that Public Domain has developed from more than a back bedroom pursuit. More and more people, perhaps dissatisfied with existing PD sources, are opting to set up their own PD libraries. Some do it for fun, others aim to make their fortune from selling other people's voluntary efforts.

Martyn Brown has been in PD for over three years. Known to his friends as 'Spadge', he is one of the most influential players on the PD circuit. He is reflective on the UK Public Domain scene, hankering back to the early days when the floppies were few but the quality was high.

"Our most popular sellers in the early days were utility disks, Sonix tunes and the Walker demos," he relates, pointing illustratively at a 17-bit PD catalogue on the table. So what sells now? Martyn reveals without hesitation: "It is all sampled stuff now, graphics and sound."

No productivity software?

Martyn breaks the silence pensively: "No, not really, it is one of the weak spots with Amiga PD. We do some utility packs but there is hardly anything in the way of decent serious software."

What we now have is a Public Domain software base awash with demos , innumerable disk utilities and workbench hacks, but few useful programs. This is quite a contrast to the PD scene of a few years ago.

Free PD?

PD libraries charge anything from 50p to £5 for disks. As previously dis-

PD the legal language

For the average newcomer the almost endless variety of legal variations beneath the umbrella of the Public domain can make the basically liberal philosophy of the business seem very confused.

To help clear the waters here's a brief guide as to what it all means.

PD/Freeware

With this format you're not obliged to send anything to anyone, the whole thing is totally free. The only restriction is that the software is not sold commercially and if it's distributed to anyone the cost of the disks is not meant to exceed the amount required for duplication, packaging and postage.

Shareware

This is by far the most popular format. The idea is to allow you to sample the software and if you then use it on a regular basis you're legally bound to pay a nominal amount to the author.

This will usually have the added effect of making you a registered user, which generally means technical support and access to the latest upgrades.

Licenceware

In most cases this distinction only really applies to PD libraries by restricting distribution to the library with the particular software franchise in question.

As far as we the punters are concerned the software itself is usually Shareware with an occasional exception and should be treated accordingly.

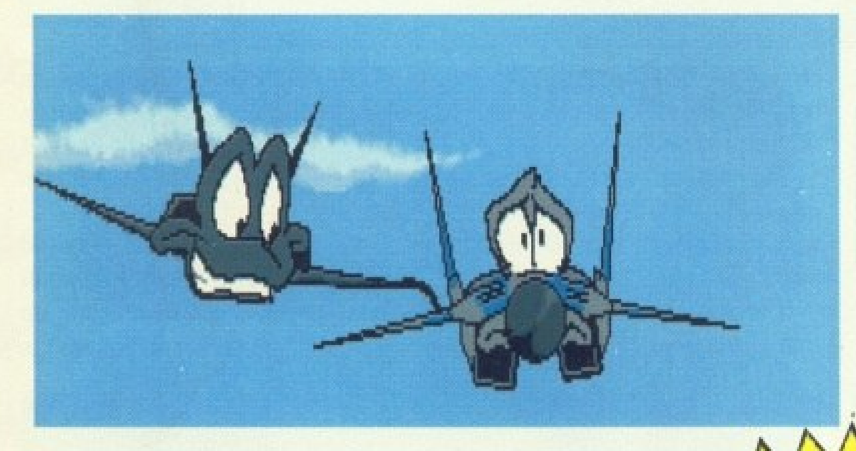
Beerware

This is a splendidly silly alternative which calls for the donation of a six pack of beer to the alcoholic author. Of course if the beer monster in question lives in Lapland it could be a lot cheaper to send a cheque and a bottle opener.

Charityware

This is a rare but highly commendable variation on the theme. As you've no doubt guessed if you become addicted to the program in question you're required to send a donation to the charity of either your or the author's choice.

If your conscience can stand this particular poke in the eye and you still don't donate you've got to be classed as a very sad character.

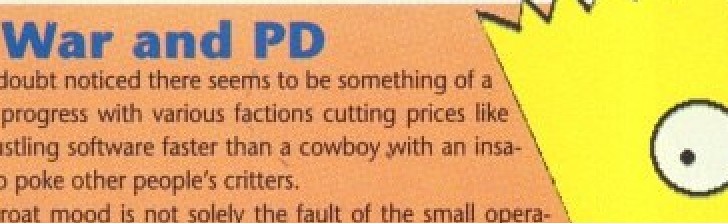


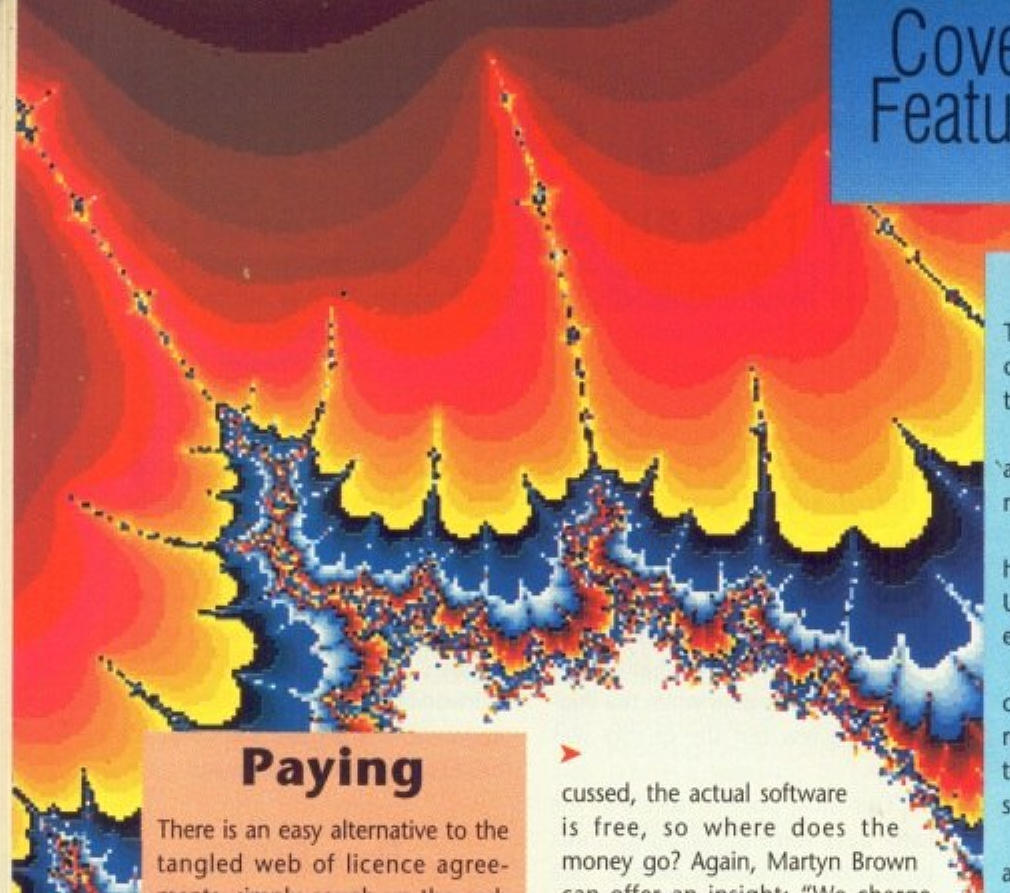
War and PD

As you've no doubt noticed there seems to be something of a range war in progress with various factions cutting prices like throats and rustling software faster than a cowboy with an insatiable desire to poke other people's critters.

This cut throat mood is not solely the fault of the small operators but in fact quite the reverse. The large libraries use their formidable market position to corner various new releases with Licenceware agreements which vary in detail but invariably result in the software being tied temporarily or permanently to the library in question.

As a result, what's left for the rest becomes very hot property and of course that's when the blood starts to flow.


Cult hero Bart Simpson can be widely 'sampled' in the PD



Have you paid your licence

The Licenceware arrangement is something of a mixed blessing. It actually contravenes the spirit of PD in the eyes of most aficionados by restricting the socialist ideals of the PD concept.

The trouble with such high ideals is that they are seldom lived up to and as a result the poor forgotten souls who created the software rarely receive the reward they so richly deserve.

The rewards should come in the form of Shareware donations from the hoards of punters who regularly make use of the authors' hard work. Unfortunately this very seldom happens and as a result licenceware releases are destined to dominate PD in the not to distant future.

The various forms of PD agreement are explained elsewhere in the article but nevertheless it's worth remembering that the vast majority of releases are Shareware which leaves you legally bound to contribute to the coffers of the author if and when you become a regular user of the software.

In the eyes of many an author the licenceware approach is an ideal answer to the problem of non payment. When a product is licenced to a particular library the author immediately receives a payment for his labours.

At this point the software doesn't usually become copyright material in the normal sense, but it does mean it can't be legally distributed by another library. Nevertheless it can usually still be given away, something which the average PD library is far from keen on.

Even though the authors do receive some cash from the library which will be distributing their latest releases, it's by no means enough to retire on. As a result there's no reason why a Shareware contribution couldn't be made to encourage the authors on to their next minor masterpiece.

There is a variation on this theme which makes the licenceware contract valid for a limited period. This is perhaps the best of both worlds, allowing the author to see some return, the library to make some profit, which of course they donate to charity, and lastly for the spirit of PD which can fully embrace the software after the licence period expires.

The old guard may well be completely died in the wool as far as PD principals are concerned but with the new mood in the market these high ideals are no longer enough to maintain the standard of software which the average complacent punter has come to expect.

Paying

There is an easy alternative to the tangled web of licence agreements: simply cough up the cash and make the donation like you're supposed to.

This isn't quite as surreal as it seems. There are some definite advantages to becoming a registered user. Perhaps the biggest bonus is access to updates as soon as they're available, not to mention the technical support the author will be more than happy to supply to his new found friend.

Another twist in the tale employed by many a wiley author is to only supply partial versions of their software for release within the PD.

Only when you do the decent thing and cough up the cash will you receive the full-blown all singing, all dancing version of the software complete with extra disks or occasionally even various hardware add-ons which will allow full use of the software in question.

An alternative method of encouragement relies on the need for a manual which the author will happily trade for the appropriate cash incentive. Both these methods are becoming increasingly popular.

The only downside for the partially complete approach is the potential for free advertising that has already been spotted by a good few commercial companies.

Occasionally it can be really useful to get some hands-on experience of expensive commercial packages before you hand over your hard earned cash, but more often than not the PD alternatives are just advertisements for the next ninja mutant blast-'em-up.

cussed, the actual software is free, so where does the money go? Again, Martyn Brown can offer an insight: "We charge £1.50 for our disks and all we really do is cover our costs."

Some of the cost can be directly accounted for: 35p on postage and packing, 30p on duplication and 5p on literature. These factors combined account for 50% of the cost.

That may look as if it leaves 70p profit on each disk but there is quite a lot to read between the lines.

From that remaining 70p, the library has to pay for lighting, heating, telephones, five staff and a whole range of other day-to-day costs.

Add to that the production of the "Update" disk magazine which is sold for only £1 an issue and the cost of advertising in magazines.

With these factors combined you won't get much change from £60,000 each year. The bottom line is, in order to cover costs 17-Bit have to sell 85,715 disks annually.

To assist in the duplication process, 17-Bit have a professional duplicator capable of chucking out copied, verified disks at the rate of 128 an hour.

So if you have a bedroom big enough and you really do enjoy licking stamps there is nothing to stop you setting up a library. Don't underestimate the sheer volume of effort required though.

Direct Connection

It is possible to get your hands on PD software without paying a library for it. Hundreds of Bulletin Boards exist up and down the country providing literally thousands of PD programs for a wide variety of machines. Up until a year or so ago, the Amiga was the poor relation online, but we are catching up fast. Most BB's don't charge for downloading software, but they usually expect something uploaded in return.

This principal works well, ensuring that there is always a fresh supply of software available to download.

It is important to bear in mind that depending on where the bulletin board is, how fast your modem can go and how big the program you are downloading is, it could well be cheaper to buy the software from a library.

If you are determined to spread PD to the masses, it might be worth taking the plunge and setting up your own Bulletin Board. This isn't as



An old friend from the Public Domain Demo scene

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D173 Budbrain 2 (The Sequel!)
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D189 Centronics Demo Compilation
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D180 Cokeman/Smurf Animations
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D228 Crusaders Freaked Out!
D232 Deadly Jammin 2
D171 Desert Island Slideshow
D157 Dragons Lair 2
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D216 Fashion Megademo
D150 Fillet the Fish
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D170 Girls of Sport Illustrated
D210 Good Morning Vietnam
D169 Home and Away
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D172 Indy 500 Game Demo
D229 INXS and Cascade Demo
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D047 Jarre Docklands Demo
D154 Jarre Revolutions
D046 Jasper Carrott
D192 Jesus Loves Acid (Superb)
D128 Kylie Demo (2 Disks)
D175 Kylie: Locomotion
D221 Loadsamoney
D213 Machine Animation
D055 Madonna
D164 Madonna (2 Disks)
D146 Madonna 2
D168 Madonna Cartoon Animation
D129 Maria Whitaker
D188 Napalm Death
D074 Probe Sequence
D075 Puggs in Space
D183 Red Devil Compilation 8 (1Mb)
D176 Red Sector Megademo (2 Disks)
D187 Roger Dean Slideshow
D083 Safe Sex Demo
D130 Sam Fox
D177 Space Bubbles
D163 Space Chase (1 Mb)
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D089 Star Trek Animations
D112 Stealthy 2 (1Mb)
D233 Subway Clapping World
D174 Technoball Game Demo (New)
D212 The Dream Goes Berserk Anim
D227 Ugly Mug Goes for a Spin
D099 Walker Demo 2 (1Mb)
D196 Web Demo Compilation

UTILITIES

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U071 Biorhythms (1Mb)
U054 Business Card Maker
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M122 Original Rips 3
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M107 Pet Shop Boys: Suburbia
M125 Powerpack: Passionate Album 1
M129 Queen Latifah/De la Soul
M131 Simpsons: Bartman (3 Disks)
M054 Sonix House 1
M109 Synth Music
M102 Sydney Youngblood (Bass X)
M124 The Power Remix
M031 The Wall - Pink Floyd
M032 Walk this Way
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M133 Zee's Hip-Hop Disk

GAMES

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Cult themes like 'Star Trek' form an important part of the PD scene

cheap as it might sound either though.

Firstly you will need a fairly meaty Amiga, a fast modem and masses of storage space. Next you will have to get a phone line and pay the quarterly rental.

You will not be able to hold an impressive range of software for download on a single floppy Amiga 500. You really need a hard disk to do a board justice, even then it could be a struggle.

As of January this year, the Fred Fish library consisted of 530 megabytes of data spread over 46,000 separate files.

If you really do have more money and enthusiasm than sense, you would do well to consider a CD ROM drive. The Fish collection is available on a single CD for $69.95.

The politics

The Public Domain sector seems to have changed quite dramatically over the years. Something which owes its success to a group of enthusiasts working together to promote a machine has turned into a much more commercial beast.

As the collection of available software grows, it is obvious that the number of distribution outlets and methods will increase. At the end of the day it is down to Public Domain users to keep the industry in check. Any library which starts solely for profit does not deserve to survive, nor will it with the fierce competition in today's scene. Martyn Brown wryly recalls the early days: "We would put a lot of effort into compiling disks only to find another library copying them and selling them for £1 cheaper."

The whole point of Public Domain is that it can be freely distributed so things all come back to enthusiasm and effort. Martyn is not bitter about the re-distribution of software from 17-Bit's library.

He acknowledges that the practice can't really be described as pira-

All change

A quick glance at any author's income, or to be more accurate the lack of it, is enough to make anyone understand the disillusionment which drives the talented to the tempting allure of licenceware and possibly on to do the unthinkable.

Yes there's an even darker side to the business which is beginning to appear due to the apathy of the punters. This is the recent move by the authors of software such as the massively popular PowerPacker series to release their latest versions in the commercial sector in a final desperate attempt to make floppies meet.

This is almost an inevitable move which is brought about solely through a lack of support within the PD. As I mentioned earlier the complacency regarding quality releases never fails to amaze me.

PowerPacker is a fine example. When it was in the PD most people never considered posting a Shareware donation but nevertheless these same souls were more than happy to cough up the £7.99 to buy it commercially. Perceivable value is a strange beast...



Hours of talent and hard work often combine to produce useless, if entertaining demo's



The seductive face of Public Domain

Fred Fish

If you look at almost any PD column, sooner or later the name Fred Fish is bound to make an appearance. The Fred Fish or "Fish disk" collection is the biggest and best in the business.

Good old Fred has been banging out the goods since 1985 and as a result it's become the definitive collection which covers literally everything to do with PD on the Amiga.

Fred's latest wares are a very hot item in the PD world and the best bits soon find themselves in almost every library in the business. If a library boasts a complete and current collection of Fred's disks it's usually safe to say that you're dealing with a professional outfit.

At the last count Fred's collection came in at around the 460 mark so that's the sort of figure you should be looking for. The collection was initially compiled from sources mostly within the states but as it's grown it's attracted contributors world wide.

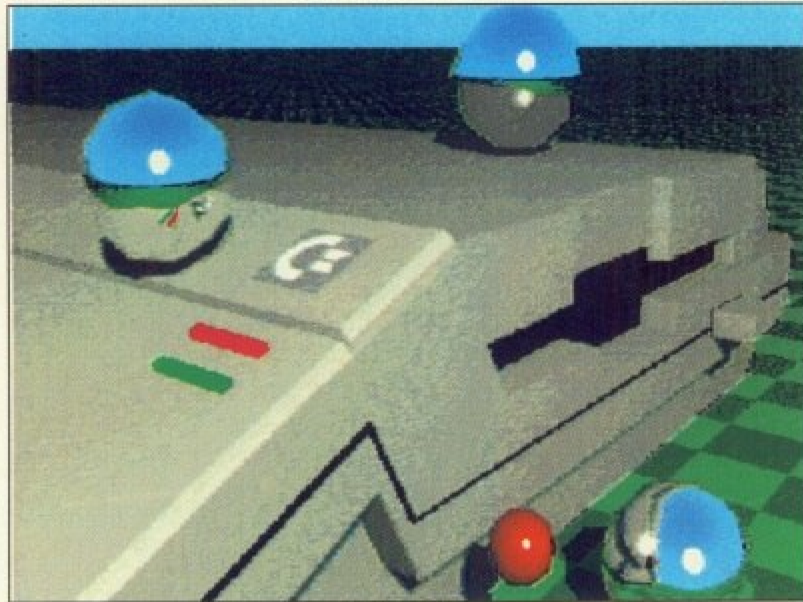
The only real problem with Fred's immense collection is its size and variety, so if you're after specific items a copy of Aquarium is essential. This is the database which gives a guide to the entire collection and should take you straight to what's required.

Back room

With the business being 99 per cent mail order, the temptation to set up a couple of drives in a back bedroom and dodge the inquisitive eye of the tax man is almost too much to bear for many an acne ridden entrepreneur.

This often ends in some very dodgy operators and virus ridden results that can cause misery to millions of defenceless files. Because of the small scale and limited access to new material most of the software on offer is usually far from new and often less than complete.

A common marketing ploy is to be extremely selective when constructing the disks. For example a couple of useful utils or the odd game may be added and then heavily featured in the ads but the rest of the disk is invariably complete rubbish, merely added to make up the numbers.


More of that ever popular PD pursuit, ray-traced art

cy because there is no copyright on the software to start with.

If you are looking to buy PD software, the message is to shop around. A casual flick through this issue of *Amiga Computing* will reveal a myriad suppliers eager to provide you with their wares.

See a specialist

Libraries tend to specialise these days in order to cultivate a particular area of the market. As Martyn acknowledged, 17-Bit is perhaps not the best place to find productivity software, but if it is utilities and entertainment software you are after, the choice is endless.

Most libraries produce catalogue disks, or hard-copy lists. It makes sense to scan these carefully before committing to buying a lot of disks for only a few bits and bobs of software.

Often you can find the same programs you require, packaged up on fewer disks within a different library.

The range and depth of software available is evident within the pages of *Amiga Computing* each and every month.

Our Public Domain column aims to provide the latest gen on programs that are unique, of special merit or just plain indispensable.

To make the most of your Amiga, you really should make the most of Public Domain.

The new movement

If it's quality rather than quantity you're after take a look at some of the long established libraries which produce compilation collections of the best software in any specific area. These are combined to form the definitive PD collections in each particular field. They can vary from games, utilities, home management, clip art and so on.

If you've not yet delved into the domain this is an excellent entry point for your first investments. On paper it can sometimes appear a rather expensive alternative to single disks priced at 99p, but it's worth remembering that there's very little wasted space and of course you're sure that the contents will be relevant to your requirements.

The plastic press

Another aspect of the domain not yet mentioned is the ever expanding market for disk-based magazines. If you're not familiar with the medium a brief explanation is in order.

These disks are usually monthly offerings which are either released through the individual libraries in a similar format to the licenceware arrangement applied to PD software or are written and released by the larger libraries themselves.

These are then either bought separately or sent to registered subscribers in a newsletter format.

If it's literary quality and news you're after it's probably best to go for the independent releases. Aside from the quality of the contributors there's the added advantage which the international input lends to the magazine.

As a consequence of their Email upbringing they tend to provide the latest stories, software, news and reviews from literally all around the world.

Of course one of the main selling points of most plastic mags is the weird and wonderful collection of software bundled with every issue. It tends to be something of a mixed bag but in general the quality is high and of course bang up to date.

If you check out the Public Domain section in this issue you'll find a guide to the alternatives which should point you in the right direction towards the best in the plastic press.

Helping hands

Another commendable talent of the PD is its ability to throw a lifeline to those poor souls who are stranded, lost and alone with their consuming passion for some sort of bizarre Amiga application.

If you're one of these poor unfortunates try contacting one of the larger libraries and they should be able to put you in touch with various clubs that deal with everything from fractals to C programming.

Most of these clubs release monthly newsletters full of hints, tips and reviews which cover everything to do with their particular passion, so even the keenest enthusiast should be kept happy for hours, months or even years.

Private collections

Along with the PD monsters which are distributed to all such as Fred's there are a number of collections which are exclusively distributed by individual libraries.

An example of this would be the Tbag collection released through the Amiganuts United. It's a monthly offering that takes the pick of the PD from the states and combines it onto a single, extremely stylish disk. It's worth enquiring with larger libraries about similar deals they may have struck with other collections.


Digitised pictures are very popular...

Why do they do it?

Even if you prefer a poke in the eye to the average scrolly demo you can't fail to be impressed with the incredibly clever coding which goes in to producing these amazing combinations of graphics and sound.

I'm far from a fan of the average scroll routine but I must admit the quality of the coding never fails to impress.

The obvious question is, why aren't these guys and gals making a fortune writing the next software smash?

Well, quite simply that's exactly what they intend to do and a jaw dropping demo is just the thing to attract the attention of the software houses. Many a scrolly demo expert has moved on to coding classics for the commercial sector.

It's not only coders who benefit from the demo scene. If you're looking to break into the serious side of Amiga music, joining a coding team may well be a route to fame and, if you get noticed, perhaps even a bit of fortune.



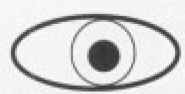
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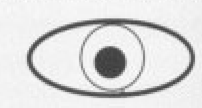
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WE ARE ALSO THE ONLY DISTRIBUTORS OF NEWSFLASH (COMPILED BY Mj BROWN) 17-BIT THAT BIT BETTER!

Squash dem bugs!

Arcade action to keep your joystick jiggling with Matthew Donkin's superb shoot-em-up. Kill those creepies!

Rollerpede isn't a blindingly original game concept. In fact, it's already been done a great many times in every way from the arcade console original to budget compilations.

What's new about this implementation is that it's **free** and at least as much fun as the game that hooked so many of us in the arcades back in the early eighties (sound of nostalgic music in background).

Ah – those were the days! When sprites were sprites and greenie blasting meant just that – no softie multi-colour games in the old days! *Defender* and *Galaxians* were two of the most popular games around, offering raw non-stop blasting with none of the frills associated with today's games (any more nostalgia and you're fired – Ed) but arguably the most addictive was *Centipede*, on which our own *Rollerpede* is based.

> NOTE: This game uses 400k of memory, so users with unexpanded A500s will have to run it from CLI. Simply close all windows except the window opened at the bottom of the screen when the disk is first booted up. Now click in this window to activate it and type
>
> CD SYS:GAME-OF-THE-MONTH <RETURN>
> ROLLERPEDE <RETURN>
>
> Rollerpede should now load with no trouble. If you're still having difficulties (Error 103: out of memory, for instance), you must still have some windows open or another program running in the background.

The object of the game is to blast as many aliens as possible before your own inevitable demise, racking up as many points as possible in the process. To aid you in this you have a generous five lives at the start of the game, and it soon becomes obvious why you need so many.

The game starts with a better than average Soundtracker tune, and offers two screens of basic information on the sorts of aliens and power-ups you can expect to meet. After this, a click on the joystick fire button starts you in on the game proper.

The first thing you'll notice is that *Rollerpede* is smooth and fast, and that the sound has been very well done. The spot effects for shots and explosions do the job without assaulting the eardrums too much, and all scrolling is entirely judder-free.

Speed is a prime concern in the game. Your ship will only move at one speed – there's no power-up for mobility – but the enemy can descend on you at a frightening rate once the screen begins to fill up with mushrooms.

When it encounters a vertical corridor of mushrooms, the Rollerpede will snake down at great speed, and can squish the hapless player before he can loose off more than a shot or two. The first few levels aren't too taxing as long as you can shoot fast enough, but when the aliens begin to manifest themselves in forms other than the standard Rollerpede, things can rapidly get hairy. There are four special alien types: UFOs, Walkers, Seekers, and Spiders.



Rollerpede – smooth, fast and excellent use of sound are its hallmarks

THE

Super samples

Directory: Tune-of-the-Month

A little while back, we received a diskful of samples which had our jaws dropping even as we listened to them. 'Twenty Cuts, Breaks and Scratches' from Paul Hill (of De-Bugging the Wack, Northampton) was a disk containing some of the best Amiga samples any of us had ever heard, and we couldn't resist using them.

Unfortunately, it would be unfair to devote an entire coverdisk to samples, as our non-musical readers would hasten to tell you, so we've done the next best thing and decided to supply as many of our favourites as space on the disk permits.

This month, you'll find a 'samples' sub-directory in the Tune-of-the-Month directory, and in it you'll find six superb samples. Four of these are special effects which you could use in a tune if you really wanted to, but which are mainly just good fun, or of use to those using Walt Disney's Animation Studio and who'd like to add SFX to their cartoons.

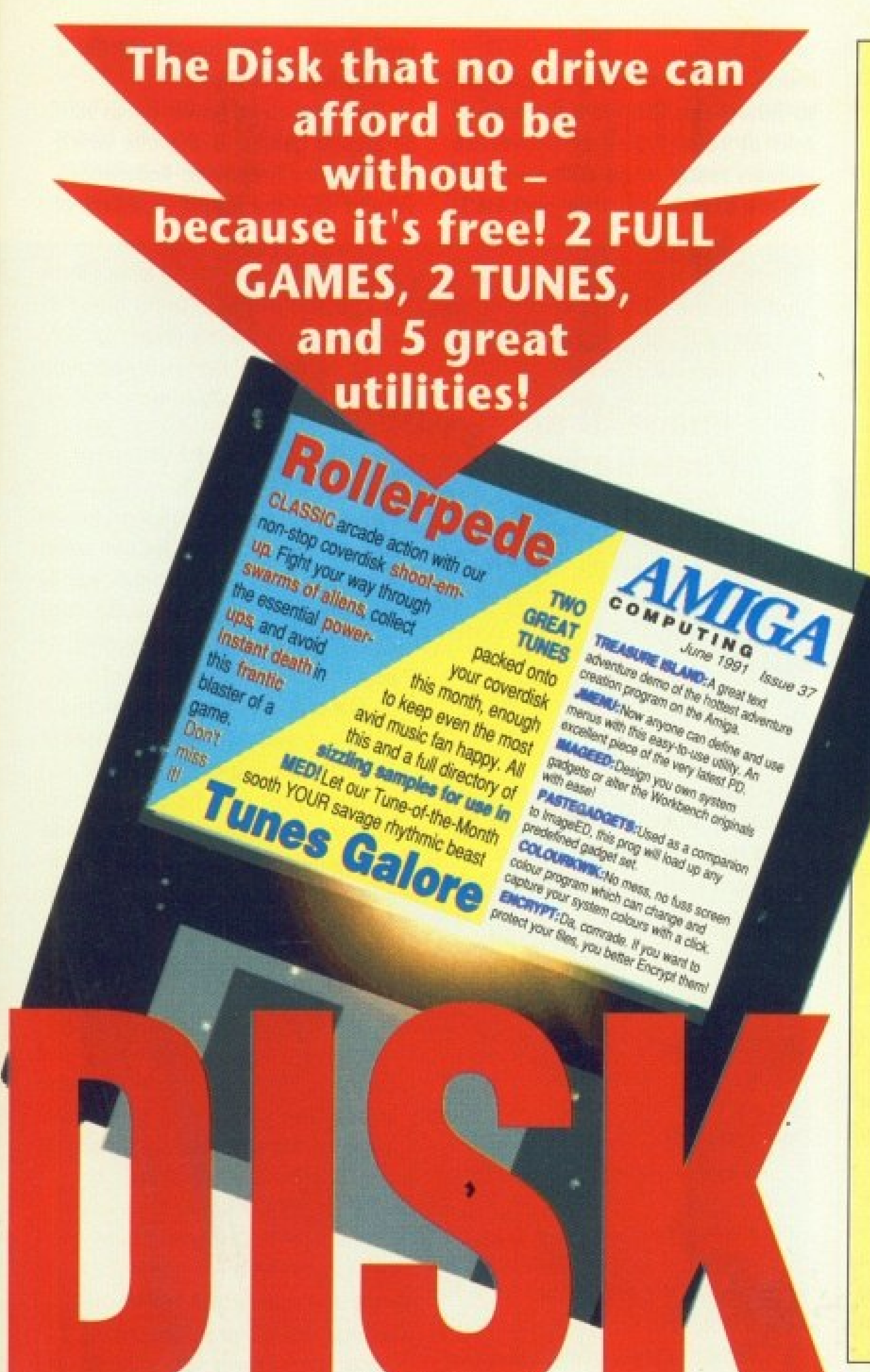
The other two samples, however, are from Paul Hill's disk and are guaranteed to grab your attention.

Funky Drummer and Boyee are lengthy samples which you can use as a basis for a house or hip-hop tune. If you doubt the ease with which you can make music on your Amiga, load these into last month's coverdisk sensation, MED v3.00, and play them using the 'U' key (this is the pitch at which they seem most happy). You should quickly spot the potential for using such high quality sounds in your own compositions.

Nefarious nasties

UFO's are easy enough to avoid. They simply fly along the top of the screen dropping strings of bombs which, although not very dangerous on their own, can detract considerably from your life expectancy when you're trying to dodge attacks from three other directions. Shooting them as soon as they appear is the best way to deal with them, and will earn you 1500 points.

Seekers are a bit more of a pain. They

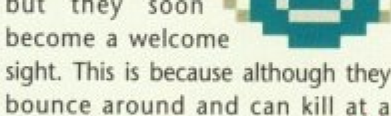


appear at the bottom of the screen and look something like SCUD missile launchers. The difference between these and real SCUDS, however, soon becomes apparent when they home in on you with something approaching accuracy.

Shoot the missiles to preserve your peace of mind and boost your score by 3000 points.

Walkers are extremely annoying because they can't be killed. They crawl slowly along the bottom of the screen, firing from time to time, and force you to hop over them. As this can often mean colliding with a passing rollerpede, Walkers are about the most annoying aliens of all. Avoid them until they walk off the edge of the screen.

Spiders at first seem dangerous, but they soon become a welcome sight. This is because although they bounce around and can kill at a ➤





A variety of bugs and power-ups to keep those joysticks busy

Tune of the Month

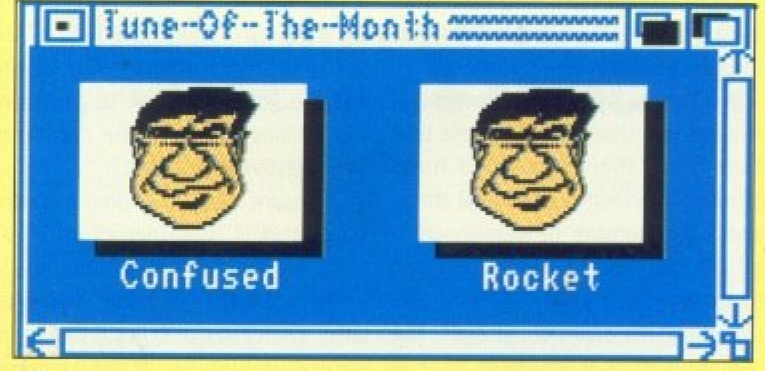
Author: Argen Schumacher

OK, we said we'd bring you something special to make up for the lack of a Tune of the Month last month, so we did. In your Tune-of-the-Month drawer you'll find not one, but two, excellent tunes and a directory full of top quality samples into the bargain!

Rocket and *Confused* caught our attention because they are different and because they utilise MED's sequencing capabilities without falling prey to its inherent weaknesses. In other words, they may have been written with the aid of a sequencer, but they don't sound like sequences.

It is all too easy, when using a tool like MED, to fall into bad habits and to produce music that is repetitious and bland. With so many easy exits provided for in MED, the overwhelming temptation is to give in and follow along the beaten track (no pun intended), and just cut or paste the same block of music, with a few variations, until it's long enough to pass off as a song.

The user can't be completely to blame, because all sequencers encourage to a certain extent the sort of repetitious techniques which are responsible for this type of computer music. However, when you hear songs like the two we've chosen this month, you have to admit that there can be little excuse for lazy composing.



How to use The Disk

First of all, you must make a back-up copy of the coverdisk. To do this, boot-up with your copy of Workbench, then double click on the Workbench disk icon, followed by the Shell or CLI icon. Now type:

DISKCOPY FROM DF0: TO DF0:

or, if you have an extra disk drive, put a blank, formatted disk in DF1: and type:

DISKCOPY FROM DF0: TO DF1:

Follow the on-screen prompts until the copying procedure has ended, then put your original disk away in a safe place. Now switch off the machine and wait for 30 seconds before re-booting with the copy. Wait until the CoverDisk17 icon appears, double click on it and away you go.

That's all you need do to make a straight copy of the entire disk. However, you may also want to to copy individual programs from your copy of the coverdisk to a separate disk. In this case ensure that you fully understand which related files need to go with it.

For example, all of the document files on the disk require that the text editor PPmore is in the current disk's C: directory. Therefore, if you copy the docs to a new disk you will also have to copy PPmore to the new C: directory before you can read them.

Some of the smaller docs will not have been crunched, so for these you need only change the tool types on the icon's info screen to reflect whichever text editor you do have on the new disk.

As a general rule, you should carefully read the documentation for any program you copy from disk to disk.

This can save a great deal of messing about and can help you avoid all those infuriating error messages!

Treasure Island

Author: Tony Heap

Treasure Island is a text-only adventure in the classic mould. Where it differs from many others, however, is that you could write it yourself!

It was generated using Heyley Software's HatRack II adventure generation system, a piece of software designed to make adventure game writing as easy as possible. Anyone who has ever used *The Quill* or *Professional Adventure Writer* from Gilsoft will be familiar with this sort of utility, and might even have regretted the lack of such a program on the Amiga.

Enough to bring a nostalgic sigh from older gamers - a text-only adventure

You might be asking yourself who on earth still plays text adventures these days, but I remember reading a debate on the issue in that excellent, if short-lived, computer mag *Micro Adventurer* back in 1984 or thereabouts, and even then the pundits were concluding that the genre's days were numbered.

As far as major commercial releases go, that's more or less true today, but there are still a huge number of adventure fans out there, and if the number of lovingly-crafted PD text adventures is anything to go by, they enjoy writing and playing them as much as ever. The text adventure is nowhere near as dead as they were predicting seven years ago.

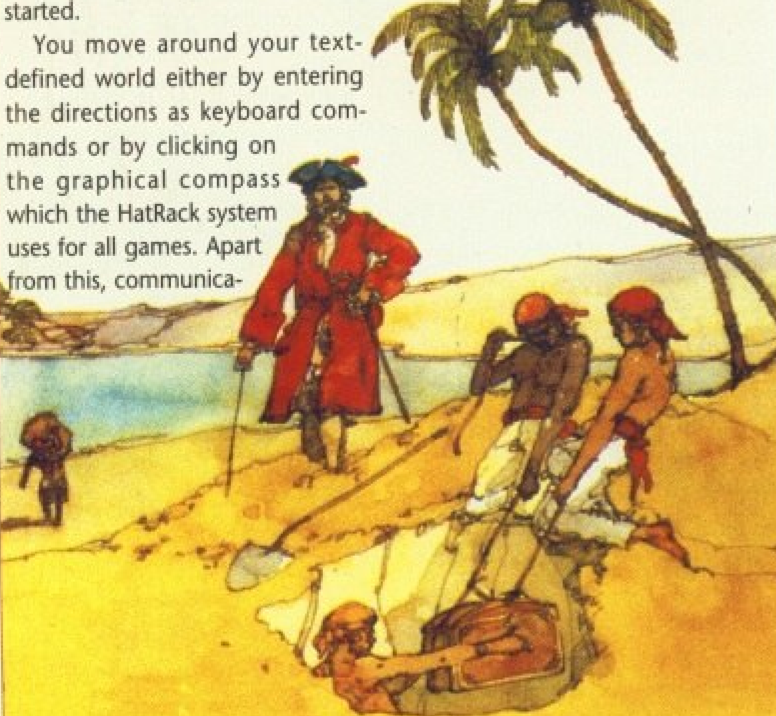
Just in case you're completely new to computer games, and wouldn't know a Zork if it sat up and bit you in the nether regions, here's a quick guide to get you started.

You move around your text-defined world either by entering the directions as keyboard commands or by clicking on the graphical compass which the HatRack system uses for all games. Apart from this, communication with the computer is carried out entirely through the parser.

A parser is a word recognition routine which converts what you type into commands the computer can act on, and the HatRack system's parser is as flexible as the best of them.

It relies on the usual Verb-Noun double act ("GET SWORD", for example) but can also cope with adverbs, adjectives, and pronouns ("GET THE BIG SWORD AND HEAVILY THRASH THE SLIMY EDITOR WITH IT", for instance). The beginner should thus be able to get his or her wishes across to the computer with relatively little fuss.

Treasure Island is a demo adventure, and is therefore quite small with only sixteen locations. It is a complete game in itself, however, and contains a tricky problem whose solution you'll have to ponder for a while. If nothing else it should give latter day gamers a taste of what they missed when Infocom closed its doors (sigh).



touch, they are the player's passport to power-ups. Shoot a spider and one of four types of power-up appears ready to be collected, and let me assure you that success is impossible in this game without a healthy supply of them.

The most useful power-up, as with all arcade games, is the one which grants extra firepower. Rollerpede's version takes the simple expedient of

These unmissable utilities can all be found in the UTILITIES directory. You can't miss it – it's the big set of tools in the disk's main window.

ImageED and PasteGadgets

Author: Olaf Leimann

These two utilities work best in combination, and give the user freedom to mess about in any way he or she chooses with the Amiga's 'system gadgets'.

System gadgets are the gadgets you click on to re-size a window, push it to the background, pull it to the foreground, or close it. You're normally stuck with the bland standard gadgets, but with ImageEd, the user can load up the existing system gadgets, alter them at will, and save them as either raw binary or C source code.

Using PasteGadgets, the customised gadgets can then be loaded in as part of a disk's startup-sequence, lending your favourite disks an air of customised quality.

ImageEd's limitations are that it cannot utilise IFF images, so that all systemgadgets must be defined with its restricted single pixel drawing mode, and its failure to use a file requestor. These bugs (if you can call them that) aren't really all that damaging, however, as ImageEd and PasteGadgets remain easy and fun to use. Fuller documentation for both can be found on the coverdisk.

Encrypt

Author: Steve Meredith

Have you ever stored files of a sensitive nature on your Amiga and wished there was some way of protecting them from prying eyes? You may have stored financial information in an address book program or database, or may simply wish there was some way to protect your love letters from discovery. Privacy can be precious!

Have you tried the AmigaDOS command PROTECT <filename> R SUB? This would remove the READ bit from the filename's flag set so that the file's contents could not be examined until the flag was reset. Not a bad defence against Amiga-illiterate snoopers, but hardly of use against the prowler with a knowledge of AmigaDOS.

By using Encrypt, you can make sensitive files resistent to all but those who know the pass-code, thus rendering them infinitely safer.

To protect a file using Encrypt, simply type the following:

```
Encrypt code1 code2 <filename>
```

The Encrypt routine will then jumble the file according to the two codes and overwrite the original file. To decypher the file, just use the same passwords and the file will be restored to its original form.

The big drawback with Encrypt is that it is not a 'runtime' encoder. PowerPacker is a good example of a runtime program because it compresses a file, then attaches a header to it which sets out how it will decompress. To use an Encrypted file, however, the user would have to go through the CLI prior to every file access.

This means that Encrypt could be too time-consuming for the casual user who happens to be security-conscious, and makes it of more use to those with a real need for privacy on his or her system.

JMenu

Author: Jim Collins

JMenu is a PD program designed to allow any average Amiga owner with no knowledge of C or Assembler to generate professional looking menus from his or her own script files.

It requires the burning of a few brain cells to use, but the results are worth the effort. To see it in action, click in the CLI window at the bottom of your screen to activate it, then type

```
CD SYS:Utilities/JMenu <RETURN>
Execute Example1 <RETURN>
```

You may get error 20: out of memory when using an unexpanded Amiga 500. If so, reboot your coverdisk, interrupt the startup by pressing CTRL-D as soon as boot-up begins, then type in the lines as above.

JMenu works as a command within a script file. When it is executed, it calls its own special script file defining what choices the menu will offer and what actions the Amiga should take in response.

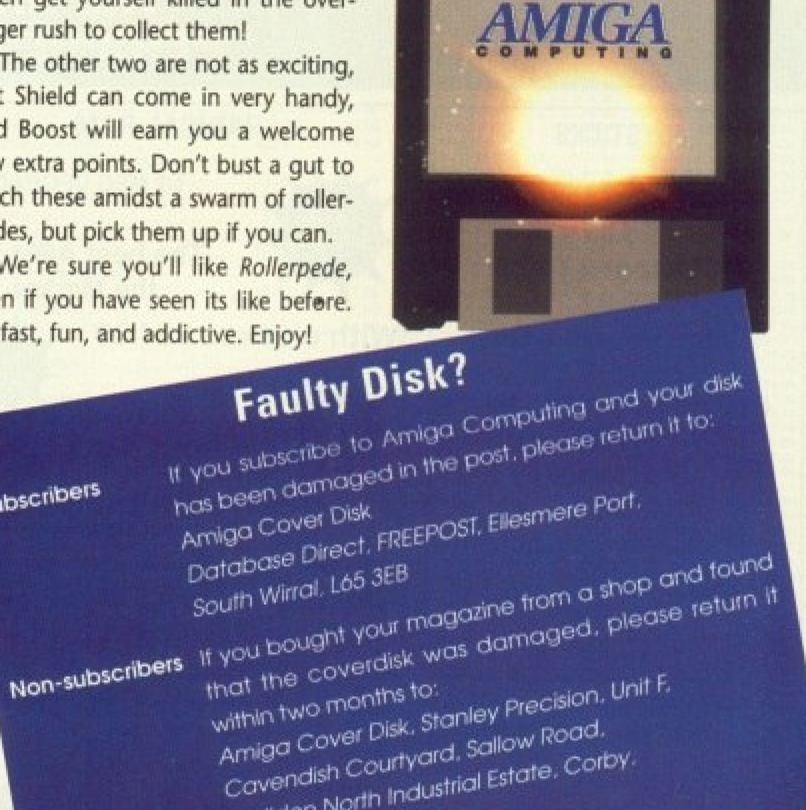
Once the user makes a choice by clicking on the mouse, the response is carried out and control is passed back to the original script file. This

doubling the player's rate of fire, which can have a dramatic effect on your greenie-totalling ability. It should be gobbled up as soon as it appears on screen as all power-ups disappear after a few seconds if not collected.

The second most useful is the 'extra man' power-up. These appear less frequently than most, but are a quick and easy route to survivability. The problem with very desirable power-ups such as this is that you often get yourself killed in the over-eager rush to collect them!

The other two are not as exciting, but Shield can come in very handy, and Boost will earn you a welcome few extra points. Don't bust a gut to reach these amidst a swarm of roller-pedes, but pick them up if you can.

We're sure you'll like *Rollerpede*, even if you have seen its like before. It's fast, fun, and addictive. Enjoy!



would enable you, for instance, to call a menu from your startup-sequence to offer a variety of startup options, such as a NoFastMem start-up, or a stripped-down Workbench.

More usefully, the program gives average owners the ability to define menus which hold simple click-and-go 'macro' style operations of their choice. The possible uses are restricted only by your imagination and requirements.

The documentation supplied with JMenu is rather brief, so you might find a few words on its technical aspects of some help. Syntax is of the form

```
JMenu <scriptname> <variablename>
```

where scriptname is the file containing information on the menu itself, and variablename is the variable which will hold the user's response.

The scriptname file is made up of three main types of information. Every menu is made up of TITLE lines, which the user can use as he or she likes, MENU lines which hold the choices which will actually be displayed, and EXEC lines which hold the AmigaDOS actions to be carried out as a result of the user's choice.

To define a menu, you must create a script file listing your MENU choices, then the corresponding EXEC responses in the same order.

As long as you put a space between the keywords (MENU and EXEC) and the text, JMenu will read these and execute them accordingly. See the example below as an illustration.

```
TITLE This is an example menu
TITLE just to let you see how
TITLE JMenu works

MENU Print a silly message
MENU Print an even sillier message
MENU Print an absurd message

EXEC Echo "I like PCs"
EXEC Echo "I like the Archimedes"
EXEC Echo "I like the BBC Micro"
```

The menu defined above would be called by a line in a script file something like this:

```
JMenu sillyexample var1
```

and would display the menu shown in the JMenu screen shot.

One last thing to remember about JMenu is that it treats the EXEC AmigaDOS command as an environment variable, and will attempt to write to the ENV: device, which is where all environment variables are stored.

```
This is an example menu
Just to let you see how
JMenu works
1 Print a silly message
2 Print an even sillier message
3 Print an absurd message
```

A silly example menu – but you can be serious if you like!

Normally, ENV: is set up either as a real directory on your disk or, more commonly, is assigned in the startup-sequence as being the RAM: disk.

This has already been done in CoverDisk 20's startup-sequence, but if you move the program to a new disk, you will have to put the line

```
ASSIGN ENV: RAM:
```

in its startup-sequence or type it into CLI before using JMenu.

Finally, feel free to experiment with JMenu. There are quite a few example scripts and menus in the JMenu directory, not all of which will work from your coverdisk because they require AmigaDOS commands not in the disk's C: directory, but all of which will work if you transfer JMenu to a Workbench disk.

ColourKwik

Author: Adam Lock

ColourKwik is one of those time-saving utilities which is only really appreciated by those who have tried the alternatives. It makes it easy for the user to alter and save to disk any single set of Workbench colour preferences, and can save a great deal of messing about.

For example, if you're one of those people (Dennis Norden not included) who have booted up a PD disk or a coverdisk, and enjoyed the Workbench colours it used enough to try to emulate them, you'll already know how hellish a task it can be to fiddle with the colour settings in preferences.

Now all you need do is run the ColourKwik program and then save your palette to disk. The obvious advantages are that you can ship colour palletes from disk to disk without the pointer and other preferences information contained in the system-prefernces file, and that by using ColourKwik you can easily alter the colours on a disk which doesn't contain the Preferences program.

Think you can do better? Want to be famous?

We are always on the lookout for new quality Amiga programs for the coverdisk. If you think you have written something good enough for others to share and enjoy, please send it in and we'll have a look.

The Amiga Computing coverdisk is used by thousands of Amiga owners every month in places all over the world from New Zealand to the U.S.A. so if your submission finds its way onto the disk, you could be famous!

Please make sure you list ALL Workbench and other files necessary for the program to work. Feel free to design your own icons for progs which run from Workbench, but please don't make them too big.

If you ensure your program is as compatible as possible with a wide range of Amigas, it will also stand a better chance of publication. We are especially interested in programs designed to work with the A3000, although if they work only with the new machine they'll have to be quite small.

We are prepared to pay our current rates for original work which hasn't been distributed in any other way and which has not been put in the public domain.

If you wish your program to be released as shareware or freeware we will be happy to publish it, but would, of course, be happier if we'd been given it first!

Your submission MUST be accompanied with the submissions form, a copy of it, or a signed declaration to the same effect. Please supply your full name address and phone number.

We cannot undertake to return disks sent to us as the volume of submissions makes this an impractical exercise.

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....

....

....

Daytime phone .... Evening Phone ....

Submission name .... Submission size ....

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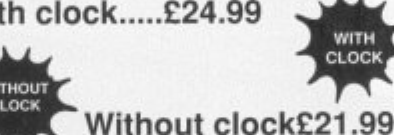
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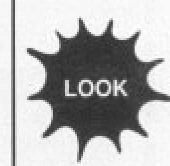
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Back to the future

What does a birthday, a magazine and a potato have in common? Eddie McKendrick blows the dust off our back issues to find out

June 1988: A new magazine launches to cater for the growing Amiga community. And 4,014 pages later you have arrived at this feature.

The pages in between have seen *Amiga Computing* cover virtually every aspect of the Amiga.

We have carried everything from getting started with the Amiga, through to making the most of the machine with numerous software tutorials and hardware projects.

Then editor, Simon Rockman summed up Amiga Computing's pioneering spirit with our opening editorial in issue one:

"Welcome to *Amiga Computing*. A magazine produced by a staff which lives and breathes the Amiga – from days of careful planning with Superbase to long nights playing Arkanoid. If you enjoy your Amiga as much as we enjoy ours then this is the magazine for you."

A flick through our 36 back issues reveals a community of computer enthusiasts growing month by month with their machine.

Over the last three years we have witnessed the Amiga develop from an enthusiast's machine into a truly affordable mass market home computer.

Amiga Computing has gone through exactly the same evolution, widening our scope as the computer we serve continues to expand and develop its diverse range of features and capabilities.

A nostalgic focus on our first issue reveals an uncanny number of parallels between June 1988 and the present day. Take for example our lead news story in issue one: "Amiga catches up with ST."

In that piece, we published the results of an ad-hoc survey of 100 computer dealers. We were pleased to report that in the Midlands and South-East, the Amiga was outselling its arch rival, the Atari ST, two to one.

One of the dealers surveyed, Steve Kingston from Bath Computer Shack, offered an interesting insight into the then Amiga market "The ST buyer I regard as an XR3 type aged from 25 to 35. But, strangely enough, the Amiga purchaser seems younger, with the exception of those people from the vertical markets such as video production."

Steve was certainly right to pinpoint video production as an area where the Amiga would later establish a foothold to be envied by other computer manufacturers.

This can be credited more to the enthusiasm of third party peripheral manufacturers than any vision on the part of Commodore.

The parallel between our first and current issues continues with the Bards Tale adventure series from Electronic Arts providing a link.

Back in '88 we took a look at the original in our first leisure software feature. Now, three years and several thousand pages later, we are looking at the latest in the series, Bards Tale III, with equal commitment and enthusiasm.

Phil South introduced the CLI to eager beginners in issue one. Again a parallel can be drawn. Stevie Kennedy's "Beginners Guide to the CLI" series continues in this issue, introducing a new batch of beginners to the mysteries of the Amiga's command line.

Forgetting the past for a moment, here and now in 1991 the Amiga is probably the most exciting hardware platform to write about. We could not hope for a more diverse range of users, all trying to sway the magazine in different directions.

Amiga Computing receives letters daily from readers: some praise, some criticise, but all care passionately about their machines. That fact was only too clearly borne out when I dared to comment on the relative merits of the beloved Amiga 1000 in a previous article.

The quantity and quality of arguments from dedicated 1000 owners defending their machine was truly breathtaking.

The running theme through every issue of *Amiga Computing* over the last three years has been progression. Virtually every expansion avenue from hard disks to local area networking and modems has been explored.

Our features have focussed on Amigas in the classroom, on the race track and even in the tunnels of the London Underground.

August 1989 saw the launch of Britain's first Amiga dedicated CoverDisk. Since then, our cover mounted media has provided megabyte upon megabyte of entertainment and utility software.

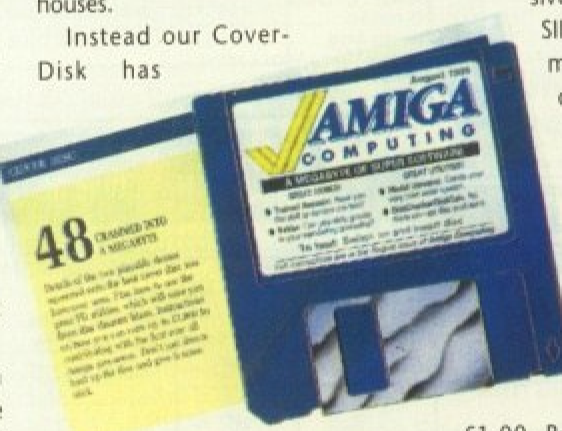
The first disk featured two playable game demos. Since then we have responded to readers views and shied away from making our disk an advertising platform for software houses.

Instead our CoverDisk has become an integral part of the publication, providing support programs for articles and stand alone software that really make the most of your Amiga.

Other magazines have since jumped on the coverdisk bandwagon, but none can claim to be as diverse or truly useful as those affixed to the front of *Amiga Computing*.

Over the months our disk has been the source of numerous exclusives including the excellent SID directory utility, MED the music editor and even an official Commodore Workbench upgrade. The CoverDisk has proven its worth with our readers time and time again.

As an experiment we withdrew the disk in February 1990 and reduced the price of *Amiga Computing* by £1.00. Reader response was over-





whelming – it was clear that our calculated experiment had gone more than slightly wrong.

In order to cool our switchboard down and stop our postbag overflowing the disk was hastily returned. It hasn't looked back since.

Around the Amiga world in 36 issues...

It would be impossible to summarise all the major events *Amiga Computing* covered in its first three years. Instead here is a look at the more quirky side of the machine.

JUNE 1988

A magazine with the internal working title of "Your Potato" hits the news-stands. By the time it gets into the sweaty hands of the public, it assumes the more formal title of *Amiga Computing*. The launch issue features a look at what lies in store for the Amiga.

JULY 1988

We herald the arrival of the F/A 18 Interceptor flight simulation. With a score of 96% Simon Rockman confidently described it as "The greatest Amiga game ever. You will believe a computer can make you fly."

AUGUST 1988

Palace software announce that they are doing a special version of their "Barbarian II" packaging following complaints from Boots about the scanty attire of Maria Whittaker.

SEPTEMBER 1988

Hewson Software enters the Amiga software market with the title Netherworld. Last month the company was put into voluntary receivership.

OCTOBER 1988

The USA Department of Defense suffered a break-in. An Amiga with a 68030 being used to simulate enemy attacks was stolen. Obviously it didn't predict that the enemy would come in through the bathroom window.

NOVEMBER 1988

A Commodore spokesman said that Workbench 1.3 was "realised but not yet shipping."

DECEMBER 1988

While other computer companies are suffering a DRAM famine, Commodore are claiming to control 40% of the world memory market. "We are still building PCs and Amigas at a time when several other manufactures are struggling to keep their plants turning over," a bullish Commodore spokesman commented.

JANUARY 1989

We take a look at the official Commodore BBC emulator. A product designed to help the Amiga break into the classroom. The emulator won't run games or any program which breaks Acorn rules. Slow at machine code, but magnificent for running educational software.

FEBRUARY 1989

A new strain of Amiga virus is discovered. The IRQ virus is different because it corrupts programs rather than disks. Also Commodore US "strongly disagrees" with a tax bill of $74.1m from the IRS.

MARCH 1989

The Amiga is fast approaching a worldwide user base of 1 million. Commodore announce plans to ensure that an ongoing supply of new hardware and software is developed to service this vast array of new users.

APRIL 1989

Commodore announce the A590 external hard drive and put it up for public inspection at the Which? Computer Show.

MAY 1989

The John Menzies store chain starts to back the Amiga by announcing it will be carried in 14 of their outlets. At the time of announcing a de-emphasis of Atari's machine, Menzies' merchandising manager Bob Shinglton confides: "The volume of Atari ST sales certainly did not come up to our expectations".



JUNE 1989

In the aftermath of the Lockerbie air disaster, an Amiga 2000 is teamed with video to reconstruct the site of the crash so police can work out what happened immediately prior to the accident.

JULY 1989

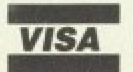
WordPerfect corporation in Utah USA announce that they have closed their Amiga development section. It is clear

WordPerfect – software the Amiga has been waiting for

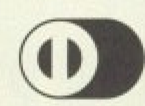
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that despite previous promises, they will not be producing any further versions of WordPerfect for the Amiga.

AUGUST 1989

The Amiga 3000 is on the way at last. So is Kickstart 1.4, but not for a while. Also in September, Commodore warn people to be wary of grey imports and WH Smith triples the number of 16 bit games it will stock.

SEPTEMBER 1989

A Swinton licensee took swift action when FAST, the Federation Against Software Theft, stepped in to tell him an illegal software copying den was being run in the back room of his pub. "It was so blatant" said a spokesman for FAST.

OCTOBER 1989

Commodore issues a statement confirming that Amiga 1000 owners have not been abandoned. In the same statement Commodore also announces that the ECS will not work with the 1000.

NOVEMBER 1989

Nick "Green" Vietch joins the *Amiga Computing* team. One of his first assignments is to meet Elvira, the result of which forms our caption competition in this month's Rock Lobster.

DECEMBER 1989

Marketing manager Jeff Earl leaves Commodore "to persue his own interests". The company famous for having more doors marked "exit" than "welcome" does not yet ask new recruits to sign the visitors book.

JANUARY 1990

With 45 shopping days before Christmas, Commodore rather meekly announces it has sold out of Amiga 500s. The reason for such huge success is the simultaneous launch of Ocean's "Batman" game and the Commodore Amiga 500 bundle bearing the same name.

FEBRUARY 1990

First hints of a 1mb Amiga 500 come to light as Commodore start to ship the machine with space for the extra 512k on the motherboard. Also in Feburary, *Amiga Computing* stops the CoverDisk and reduces the price of the magazine by £1.

MARCH 1990

CDTV was reported to have been shown to "favoured" developers in California. Also Commodore celebrated its 200,000th Amiga 500 sale in the UK

APRIL 1990

Commodore were reported to be "furious" at leaks confirming that the Civil Aviation Authority would be using Amiga 2000s to train pilots. Their fury centred around a headline in "*Computer Weekly*", a trade magazine for data processing managers. "Flight Controllers to train on games kit" was not appreciated by the company.

MAY 1990

We previewed perhaps the most successful utility program for the Amiga ever – AMOS the creator. In the same issue we announced that *Amiga Computing* would be published on paper that was "kinder to the environment." You can sleep safe in the knowledge that *Amiga Computing* is printed on paper which uses a chemithermo-mechanical process which is greener than older methods.

JUNE 1990

The Amiga 3000 drew closer with a confirmed launch pad of the Which? Computer Show. "The Tipster" horse racing form speculator program fell at the first hurdle in the Grand National. The only horse tipped by the software came in fourth.

JULY 1990

Amiga Computing provides the first exhaustive look at the long awaited Amiga 3000 but we are still waiting for CDTV. In the same issue The Last Blit relates the woeful tale of Green, our then Reviews Editor who was run over by a car during an assignment in Dublin.

AUGUST 1990

Commodore officially announces CDTV at the CES show in Chicago. Staying on the theme of innovation, Mandarin software release the eagerly awaited AMOS games creator.

SEPTEMBER 1990

120 schools in Derbyshire would be teaching their pupils Japanese using Commodore's CDTV technology. The unlikely move is a result of Toyota's decision to build a £700m car assembly plant within the county.

OCTOBER 1990

Silica Systems announce the arrival of the ATonce PC emulator for the Amiga. Thousands of Amiga owners are terrorised by the Lamer II virus distributed on the now defunct rAMpage disk magazine. Ocean software admitted that the copy protection on F-29 Retaliator caused some copies to crash due to problems with the tolerance of some disk drive units.

NOVEMBER 1990

Surprise surprise... Commodore announce delays to the launch of CDTV. The company is now citing a mid-February launch as probable.

DECEMBER 1990

Amiga Computing veterans get a shock as the first "new look" issue hits the street. The cover features a hideously mutated creature – even after extensive make-up you can't fail to be appalled by the sight of Stephen White.

JANUARY 1991

The Amiga 1500 hits the streets and our reporters hit the floor when they encounter a retailer selling "free" Commodore T-shirts off his stand at the Commodore Christmas Show.

FEBRUARY 1991

We report on the worldwide frenzy caused by the football simulation Kick Off 2. The software was reported to have drawn a crowd of 15,000 players at a league event in Italy and caused a police crowd control unit to intervene during a German event.

MARCH 1991

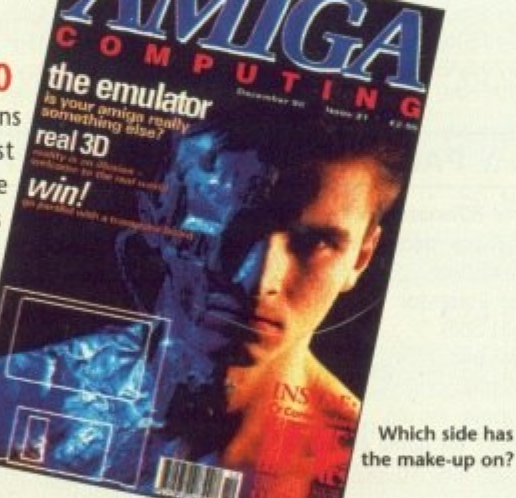
Commodore announce that they sold an amazing 140,000 A500s in the UK over the pre-Christmas period of October-December. In the same issue we start to ask questions about software censorship. The letters of response are still coming in.

APRIL 1991

It's that CDTV thing again... Commodore's press guru Andrew Ball is still talking about a spring launch for the multi-media system. In the same issue we report on an interactive skateboard launched by Cheetah. Aeroskate connects to the games system or computer then the player jumps aboard using balance and leans left or right to avoid being zapped during the game.

MAY 1991

Amiga Computing receives a letter from the Gulf congratulating Page One Public Domain on shipping their wares to the war zone so quickly. CDTV is getting closer with a demonstration of its capabilities on the BBC's Tomorrows World science programme. Commodore announce that the Screen Gems package will be shipped with 1mb memory as standard for a limited period.



Which side has the make-up on?

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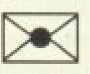
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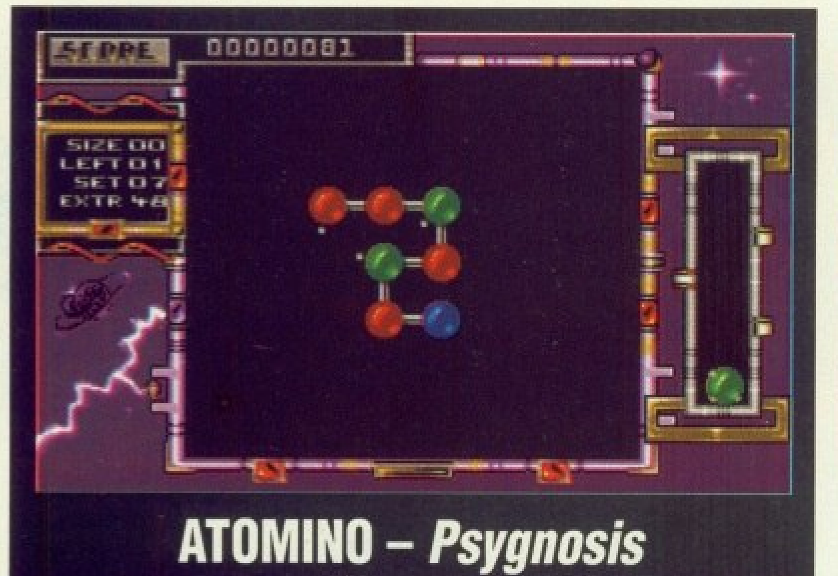
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PREVIEWS

Find out about the latest games FIRST in Amiga Computing...

ATOMINO – *Psygnosis*

You don't need to be an Einstein to have fun with atoms, at least that's what Psygnosis would have us believe with their latest release. The basic idea is to construct molecules by piecing together atoms. Each atom that you place has a certain number of electrons that orbit around it, all of which must be linked before you successful build up a completed molecule. Expect it really soon for the usual Psygnosis price.

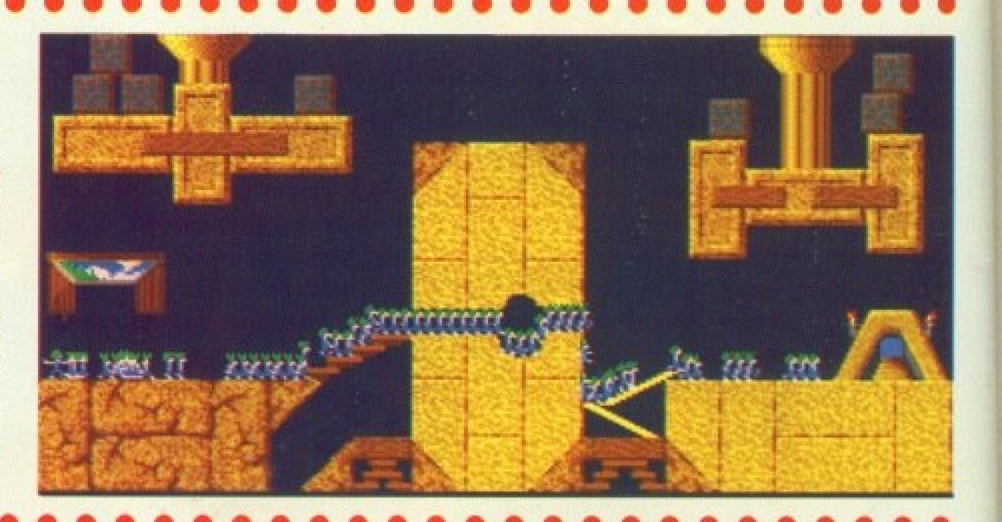
STORMBALL – *Millennium*

If you thought rugby was a tough game, just wait until you get a load of the kind of antics that the players get up to in Millennium's latest release, Stormball. Billed as 'the sport of the future', Stormball looks like a cross between Speedball and 3D soccer that sees up to two players simultaneously battling it out in a split-screen 3D game. Rules seem to be an afterthought too - put simply, anything goes so you'd better put on your pads unless you want to end up eating hospital food.

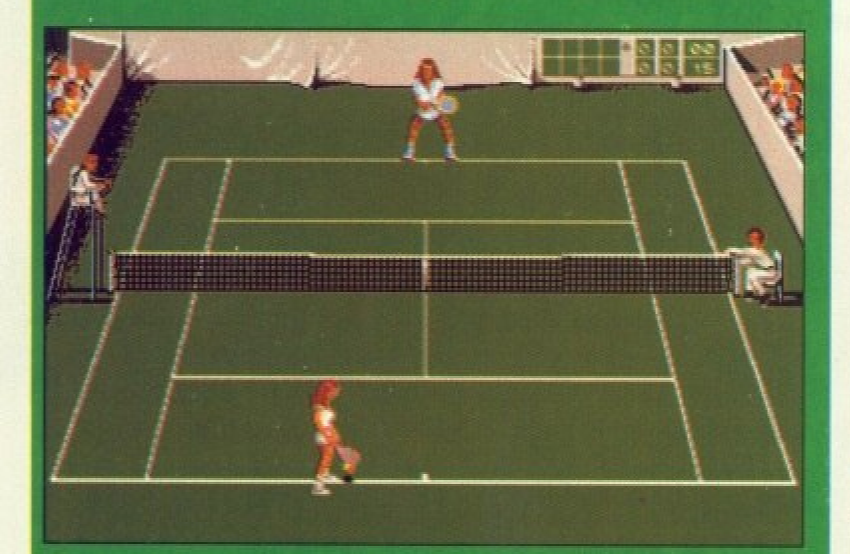
LEMMINGS 2 – *Psygnosis*

Lemmings fanatics will be over the moon to learn that DMA programmer Dave Jones has already started work on a follow up. It still has a very long way to go before we get the chance to save even more of those little green-haired fellows from certain death, but Dave is optimistic that the game should be ready for some time later this year.

According to Dave, the gameplay format is very similar to the original, but there's a greater amount of interaction with the background. Lemmings can now pick up objects, move them about and even use them to help complete each screen. There are also many more tasks that can be assigned to Lemmings.



PRO TENNIS TOUR 2 – *UBI Soft*



Zee french know a thing or two about producing tennis games which they more than adequately displayed when they launched the original Pro Tennis Tour.

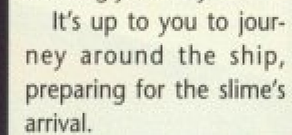
Ok, we'd seen tennis games before, but never had a tennis game been so playable. Now they've produced a follow up in the shape of the incredibly imaginatively named Pro Tennis Tour 2. The new game features tarted up graphics and a greater range of shots.

For tennis fans everywhere, this looks like being a must.

WRECKERS – *Audiogenic*

There's nothing more annoying than being woken from a good nap, but things are even worse if you just happen to be in suspended animation. In Audiogenic's latest release, you've been woken from your deep sleep by the ship's computer that informs you that some highly dangerous alien slime is heading your way.





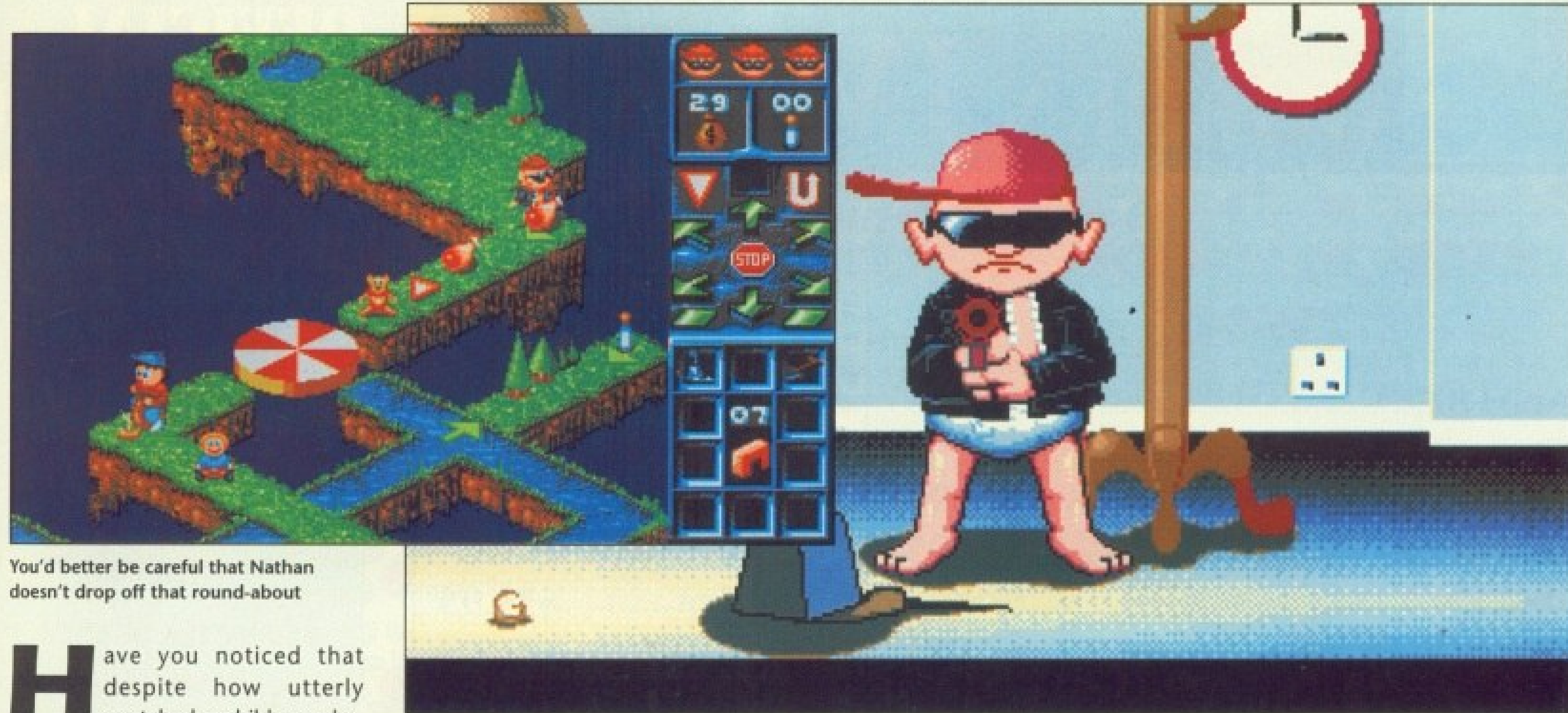
It's up to you to journey around the ship, preparing for the slime's arrival.

Eventually, all this changes to a fight for survival as the slime invades your ship. Ooh! Alien eat your heart out.

BIRDS OF PREY – *Electronic Arts*

It's been over three and a half years coming, but Jez San's latest blockbuster has finally arrived. Combining some of the most realistic depth-cued 3D objects with fast and furious gameplay, Birds of Prey promises to be something very special indeed.

You can take up a large number of different aircraft, including the A10 Thunderbolt, the F16 Fighting Falcon, F14 Tomcat, Harrier, Soviet MIG-29 Fulcrum and even the good old British Tornado. If Jez and the rest of the gang manage to find enough time between yet another pizza, then you can expect a full review very soon.



You'd better be careful that Nathan doesn't drop off that round-about

Here's looking at you punk!

BRAT

Steer naughty boy Nathan through dreamland

Publisher: **Imageworks** Price: **£19.95**

Have you noticed that despite how utterly wretched a child may be, the parents still think that they're a little angel? Whether they're running around the supermarket pelting each other with rice crispies or throwing stones at passing cars, the parents always turn around and try to justify the child's actions by claiming that their child is too young to know otherwise.

Of course we all know that this is far from the truth. Fact is, kids are pretty smart characters. Take young Nathan, for example. During the day he's a pretty lovable sort of fellow, but as the sun sets, Nathan changes into something quite terrible – he becomes a brat. As his bodily self rests, Nathan's mind goes into overdrive, taking him to a land where he's a really cool character, complete with leather jacket and shades.

Even in his dreams poor Nathan wanders around in a daze, unable to look after himself. Scattered around dreamland are many hazards that will cause Nathan to wake if he runs into them. Being a rather young chap, he needs as much sleep as he can get, so it's up to you to ensure that Nathan's journey around dreamland remains wake-free.

Unfortunately, you can't directly control our little brat hero. Instead, you must use the mouse to lay down guiding arrows that will point Nathan in the right direction. These must be laid directly in his path. As soon as he walks over an arrow, he changes direction depending upon which way the arrow points.

Along the way he can also pick up objects with which to make the going a little simpler. These include dynamite and even stop signs which can be used to halt traffic.

Brat is a lot of fun. Although initially frustrating, you'll soon find it to be a source of many hours of entertainment. Once again, it seems ImageWorks have delivered the goods.

Jason Holborn

Graphics

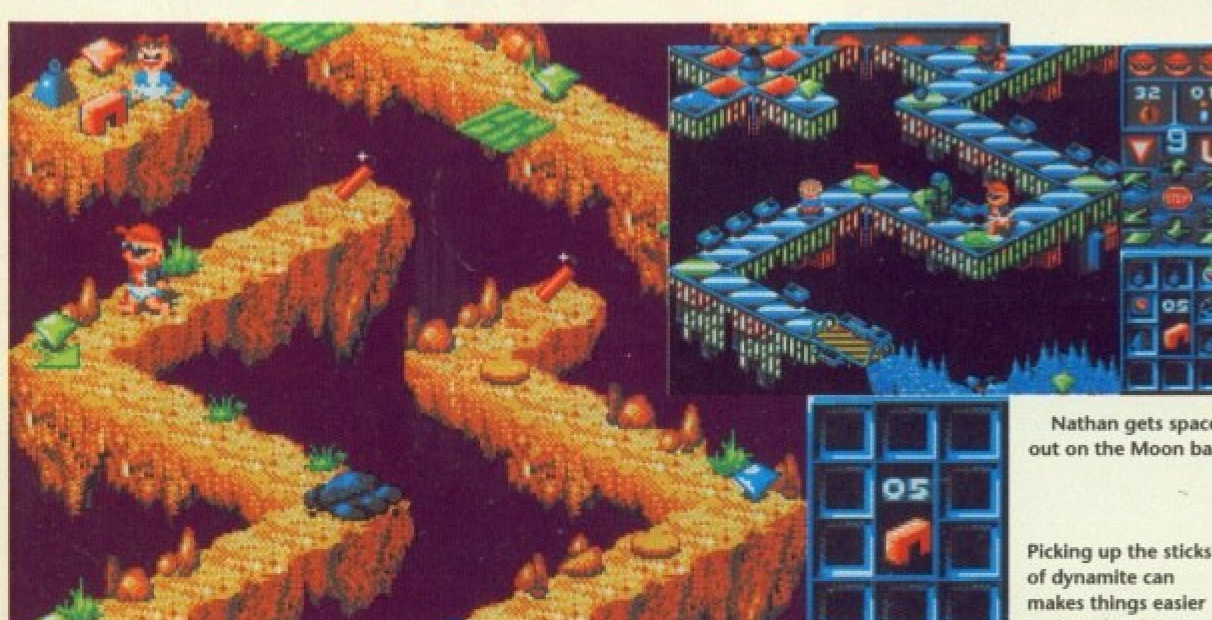
What can I say? Brat's graphics are top notch. Add to that a great (and rather humorous) intro sequence, and you have a graphically superb game.

Sound

Just like the graphics, Brat's sound effects are also very cutesy, especially the samples of Nathan's speech. The tune is great too, although it tends to get rather annoying after a while.

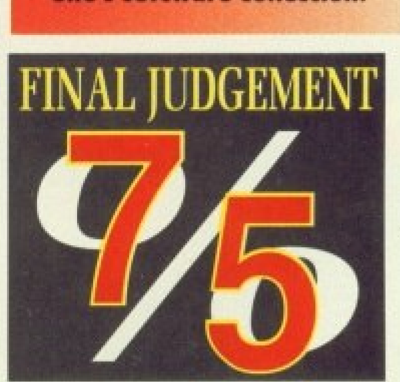
Gameplay

Brat plays very similar to that other great Amiga game, Lemmings. It may not quite be up to the same standards as Lemmings where originality and lasting interest is concerned, but Brat still manages to be a great little game. Definitely one for everyone's software collection.



Nathan gets spaced out on the Moon base

Picking up the sticks of dynamite can makes things easier on later levels



The ultimate quest continues...

BARD'S TALE III

Publisher: **Electronic Arts** Price: **£24.99**

Computer RPG fans could scarcely have failed to encounter one of the three Bard's Tale games. They are just a couple of the many Dungeons and Dragons type of role-playing games that have appeared over the last few years and each new release seems more like the grandaddy of RPG than ever.

Bard's Tale III is another of the "create a party and go and mash the monsters" RPGs, and while it's not the best in my opinion, it does have a fair amount going for it.

The quest is simple. The Mad God Tarjan is throwing his insane and somewhat humungous bulk around and not surprisingly the inhabitants of the various towns that he laid waste to and populated with evil are a little narked.

Ideally you're aiming to kick Tarjan's immortal butt out of the land but a good place to start is the local town of Skara Brae.

Players of either of the other Bard's Tale games will be able to directly port their existing character party into the latest sequel, so you can make best use of the items of power that you fought so bravely for last time. New players should not let this put them off though because BTIII may be played by beginners to RPGs.

The screen display never changes. It's a series of windows with information on the party and its surroundings. To view a character you merely press a key and the stats are called up. Unfortunately this also calls up a picture of the character as well which takes some time.

According to the manual you can skip this by holding down SHIFT and pressing the number but this didn't seem to work. A shame, because it makes swapping of booty and checking of condition very tiresome.

Should the party meet a monster, a picture of it is displayed in the top left window.

The name of the monster is told and you are given various options. You can attempt to run away, hide, or advance. If you have bowmen and spellcasters in the party they can fire from within range but the monsters have the same options as you so eventually you'll get up close.

A commentary on what everything is doing and how much various people are hurt appears in the top right window.

Spells are cast by clicking with the mouse on the spell name and then pressing a key for the target. I did find the game somewhat confusing to control as the designers couldn't decide whether to plump for the keyboard or mouse as a form of control and have come to a compromise. This means switching between mouse and keyboard quite a lot and I found it awkward.

Rolling characters was also tricky. You have to select sex and race of the character and then a series of stats is chosen randomly and displayed. If these are acceptable (which they often aren't) you then press a key for class. If they are not you have to press escape and go through the whole process again. A system similar to other RPGs would be better, with a single keypress re-rolling statistics.

John Diglan

Sound

There's no real sound to speak of, though you do get a little at times, and what there is sounds adequate.

Gameplay

Bard's Tale III is addictive, merely because I like the game type enough to persevere, and there is a hefty challenge in there for RPG fans. A pity about those niggles though.

Graphics

Presentation is nice but not flawless. I particularly noticed a flicker that runs down the list of character names about once a minute. This was offputting and looks amateurish – surely the programmers could have debugged it? Graphics are especially neat and full of character.



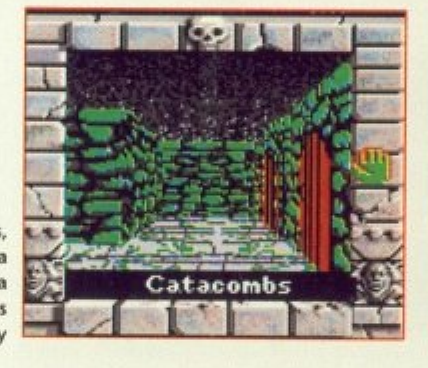
The party's first encounter: a serpent. With teeth like that, it should be a wolf!

The spoils of the encounter. That knowledge comes in handy for advancing levels, while the gold will buy equipment and food

This building may look derelict, but it contains enough equipment to make your team a formidable force



Getting into the temple requires a little arcane knowledge, obtained from the manual



Down in the dungeons, and the party has had a bit of trouble with a few monsters. Looks like a stiff's party







And here with have the latest in designer fashions for fighter pilots everywhere, modelled so beautifully by Frank and John. Don't they look the part!

Sign on the dotted line and you're dropped straight in at the deep end

It's the Biffa Bacon of the USAF

A10 TANK KILLER

Publisher: **Dynamix – 1Mb required** Price: **£24.95**



Here's what you're after – the Soviet-built T72 main battle tank. Luckily, A10s eat these for breakfast

Nope, it's not a SCUD. This little beauty could cause you some trouble

Here's the map of the battle below you. There's not a great deal of detail because your radar stations have already been knocked out!

Combat flight simulators are old hat these days, but nothing could ever prepare you for the kind of hard-ass butt kicking power that is the trademark of Fairchild Republic's legendary A10 Thunderbolt. Put simply, it's one hell of an aircraft. Sure, it goes without saying that the Thunderbolt can dish out some pretty mean fire-power, but what makes this machine one mean motha' is that it can take just as much as it can give.

Most combat aircraft are pretty fragile things at the best of times, but the Thunderbolt is the Biffa Bacon of the US Airforce. It can lose huge chunks of wing, and even one of its two engines and still keep on flying – try doing that with an F29 Retaliator! Put simply, if you want to come back alive, then the A10 is the plane to fly.

Star of the Gulf War and West country window-shattering 'fly bys', the awesome combat potential of the A10 has been captured within Dynamix's latest release. It's a combat flight simulator which puts you in the hot seat of the aircraft that was once described by a US Airborne Ranger as 'the only true friend of the modern US Infantryman'.

So, if you feel man (or woman) enough for the job, it's time to strap on your Biggles flight goggles, wrap your white scarf around your neck and go in search of something to destroy.

Strategy is an all-important part of



Hope you've written out your will!

Your co-pilot politely informs you that you've taken a direct hit. Time to bail out perhaps? Not in this baby! – the A10 can take a SAM up the bottom without a flinch!

With missiles locked on, you fly low over an enemy airbase. Press the fire button and mavericks scream forward, ripping huge chunks out of that airfield

FINAL JUDGEMENT

70%

the game, but for the muscleheads among you, there's an option which allows you to fly straight into the thick of battle, blasting away with your 30 mm cannons and Maverik 'fire and forget' missiles.

There are seven different missions which you can undertake, ranging from tank busting to taking out bridges to stop the enemy advance.

A10 really comes into its own in campaign mode. You play exactly the same seven missions that you would normally, but all must be played in succession. Just like in real life however, you can't screw up one mission and then expect to carry on as normal when you move onto the next. Your success within previous missions will have a marked effect on the ease of your next. If you screw up totally, you may even cause the war below you to be lost, forcing surrender to enemy forces.

As you'd expect, gameplay is executed in good old solid 3D, but it's far from perfect. Most of the time things run smoothly enough, but the game can slow down to a veritable crawl when the action hots up. Unfortunately, it's times like this when you most need to be able to get out of trouble quickly. Your A10 may be able to take a fair bit of punishment, but it's not indestructible!

A10 Tank Buster is a great game which is let down only by the speed of its graphics. The attention to detail leaves other combat flight simulators grounded, whilst the atmosphere it generates is second to none. It's just a shame Dynamix hadn't managed to get things running at a slightly faster frame rate. If they had, A10 Tank Buster would have been one hell of a game. As it is, it can often leave you frustrated.

Jason Holbourn

Graphics

Screen update is satisfactory, but things can slow down to an annoying crawl when the action really starts. Compared to games like F29 Retaliator or Activision's Bomber, A10 runs at a snail pace. Digitised option screens add a great deal of atmosphere to the game.

Sound

A fairly naff title tune starts the ball rolling, but things improve considerably within the game itself. Sound effects are particularly good, but it's a shame you don't get to hear them more often.

Gameplay

Whether you're a hardened strategist or a trigger-happy grunt, A10 can be as simple or complex as you want. It lacks many of the more complex flight controls you'd expect from a flight simulation, but it more than makes up for these with its nail-biting realism.

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AAR 2



That chappy looks vicious, but he's dispatched quite easily



Things aren't so easy when he brings along his friends though!

Dungeon Master meets Dynorod

EYE OF THE BEHOLDER

Publisher: **US Gold – 1Mb required** Price: **£29.95**

Isn't it strange how popular sewers are amongst monsters? Whilst the average human would rather eat his best friend's toe-nails than take a trip below ground, monsters seem to view all those dark and damp (not to mention smelly!) tunnels as a prime hang-out. You'll find werewolves, crazed opera ghosts, giant alligators and even mutant ninja turtles living happily below our feet, feeding on the occasional human that is stupid enough to venture below ground.

In this game, you control a band of four brave adventurers who must journey into the sewers below the city of Waterdeep to investigate the source of evil that lurks there. In true fantasy style, you can choose between a variety of different races, each of which has its own particular strengths and inevitable weaknesses. Negotiating the labyrinth-like sewer complex is a hefty enough task in itself, but you'll also encounter a variety of different obstacles along the way.

There's the usual assortment of traps to avoid, puzzles to solve and of course a fair helping of sewer demons (and mutant turtles?) that must be dispatched if you are to succeed in your quest.

At first appearance, Eye of the Beholder bears more than a striking resemblance to a game that should be more than familiar to anyone who has even the slightest idea of what's hot in the Amiga games scene, namely FTL's Dungeon Master.

The similarities are not just cosmetic either – much of the gameplay is very similar, but that's not necessarily a bad thing when you consider what a cracking good game Dungeon Master was.

A blatant Dungeon Master rip-off it may be, but there's no escaping the fact that Eye of the Beholder is still one hell of a game. If you only intend buying one game this month, then this has got to be it. In short, Eye of the Beholder is an absolute corker.

Jason Holborn

Graphics

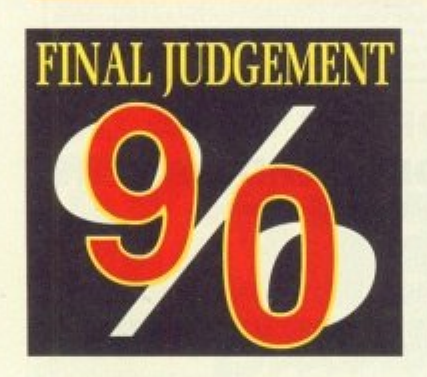
First rate. With plenty of detail and some very nice shading, Eye of the Beholder doesn't just play great, but it looks great too. If you thought RPG games were dull, then you're in for a shock!

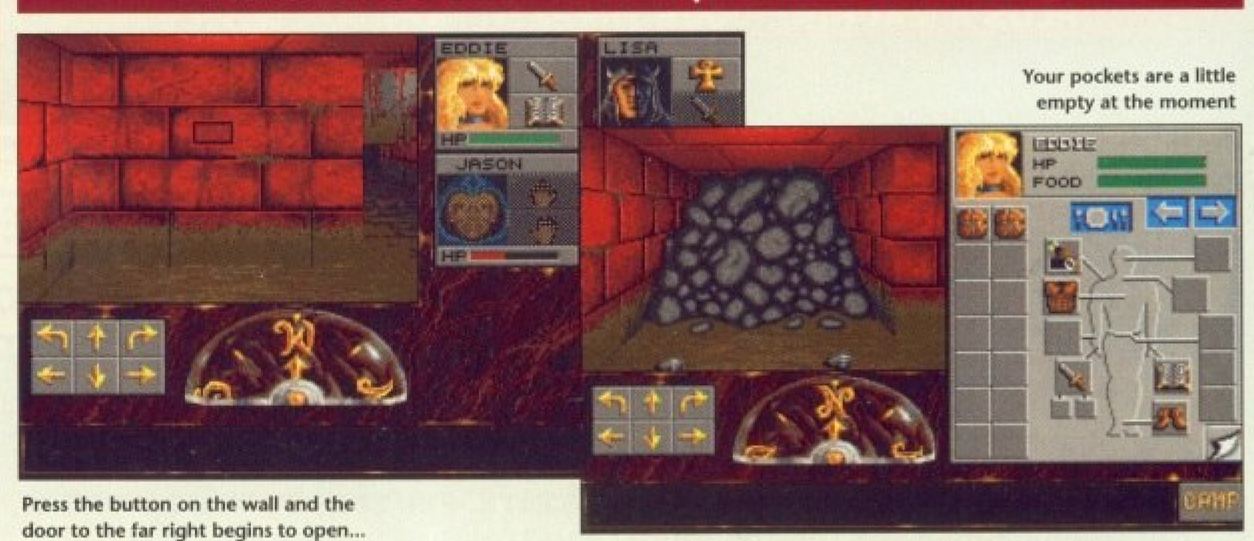
Sound

Sound effects are a little thin on the ground, but then what did you expect? What effects are present do a great job of creating atmosphere in the game.

Gameplay

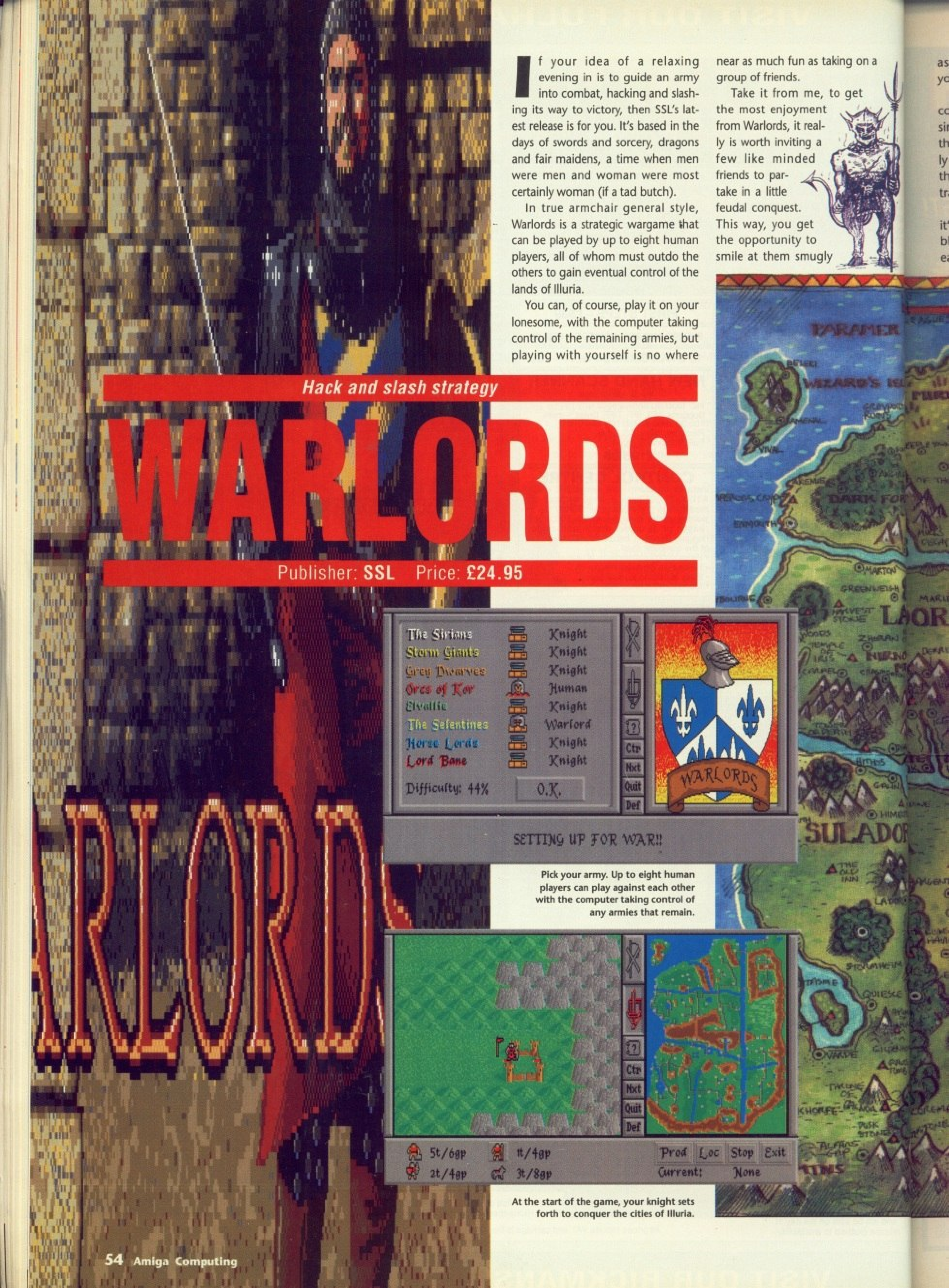
If you've played Dungeon Master, then you'll have no problems getting into Eye of the Beholder. Once you're in, you'll find it practically impossible to return to the real world. Totally captivating and totally addictive, Eye of the Beholder is £30 well spent.





Your pockets are a little empty at the moment

Press the button on the wall and the door to the far right begins to open...



Hack and slash strategy

WARLORDS

Publisher: **SSL** Price: **£24.95**

If your idea of a relaxing evening in is to guide an army into combat, hacking and slashing its way to victory, then SSL's latest release is for you. It's based in the days of swords and sorcery, dragons and fair maidens, a time when men were men and woman were most certainly woman (if a tad butch).

In true armchair general style, Warlords is a strategic wargame that can be played by up to eight human players, all of whom must outdo the others to gain eventual control of the lands of Illuria.

You can, of course, play it on your lonesome, with the computer taking control of the remaining armies, but playing with yourself is no where near as much fun as taking on a group of friends.

Take it from me, to get the most enjoyment from Warlords, it really is worth inviting a few like minded friends to partake in a little feudal conquest. This way, you get the opportunity to smile at them smugly

Pick your army. Up to eight human players can play against each other with the computer taking control of any armies that remain.

At the start of the game, your knight sets forth to conquer the cities of Illuria.

as their armies are slaughtered at your hands.

To win the game you must gain control of the cities of Illuria. Sounds simple enough, but there are 80 of them in all, most of which are heavily defended. At the start of the game there are many which are under neutral control.

These tend to be easy pickings, so it's worth grabbing as many as possible to build up your influence at an early stage. It's not necessary to control all 80 cities – if you have control of more than 40 and your nearest opponent is still at least 15 cities behind you, all seven remaining armies can choose to surrender and accept the inevitable.

Each time you overrun a city, its resources fall at your disposal. Each is capable of producing an income which is automatically used to keep your armies at their peak of performance. If you start to lose these sources of income (enemy forces capture some of your cities, for example), then this can have an effect on the fighting ability of your armies. Money isn't the only thing that a city can produce. If nurtured, some can also produce armies which can be sent into battle to achieve further conquest. All this costs money though, so it's just as important to keep your eyes on your finances as it is to maintain a decent plan of campaign.

If your finances become dire, you will be doomed to failure – without sufficient funds, you'll be unable to keep your armies supplied, which will eventually make them too weak to defend themselves against attack.

In true fantasy style, you can enlist the services of wizards and dragons, both of which will add a bit of extra kick to your army's fighting potential. You can also send your knights off on quests to search out magical swords which can be used to tip the scales of success in your favour.

These prove to be particularly important as your opposing forces become more powerful. Anyway, if you don't use magical weapons, you can guarantee that your opponents will!

I'm not the greatest fan of wargames, but I must admit that Warlords had me completely engrossed. Most of the time my feeble attempts at military strategy ended in my entire forces being wiped out, but there's something very satisfying about it all when you do eventually succeed. Unless you've got a really deep-rooted hatred of wargames, Warlords is very definitely worth checking out. It will not appeal to everyone, but if you persevere with it you'll find it to be a real cracker of a game.

Jason Holborn

The battle starts. Things don't look too good, but your knight is pretty strong

Capturing the city in the bottom right-hand corner has allowed you to build ships with which to invade the island

Oh dear, you're not particularly popular amongst the other tribes that inhabit Illuria

Graphics

Like most wargames, graphics are strictly functional. That said, they are generally well-defined and surprisingly colourful.

Sound

Pretty naff really. The title tune is uninspiring and there are very few sounds effects apart from the occasional sampled roar and the sound of clashing swords. Then again, what do you expect from a wargame? As it is, what effects are present fit the game nicely.

Gameplay

Deep and totally absorbing, the atmosphere that Warlords generates is totally electrifying. It's fun to play on its own, but the game is enhanced significantly when played by two or more human opponents.



Golf is one of the world's biggest participation sports, and wouldn't you know it from the recent spate of games for hookers and slicers!

PGA Tour Golf, fresh from its conquests on the PC tour, has now surfaced on the Amiga, and looks like a champion in the making.

What sets this game apart from others in the field, apart from being an Electronic Arts product, is the quality of the golf action itself.

Too many games have concentrated on gimmicks at the expense of gameplay, but EA have managed to come closer than any other to simulating actual golf.

In play, this translates as a much more refined representation of the swing and the flight of the ball. I would have liked a few more shot options such as those in last year's Greg Norman game, but simplicity of approach pays off in the end.

The traditional swing bar is used to hit the ball, but in this case, the penalty for inaccurate timing is realistic. Even slight mistakes can result in a vicious hook or slice, which gives the game an element of club-throwing frustration just like the real thing.

What made me very angry, more so even than when my second and third shots both went in the water at the seventeenth, was the total lack of even a token female option. The game is based around the USPGA Tour, and allows the player to compete against 60 of the world's top male professionals, but women golfers such as I can only be appalled that there is no women's tour option.

There are thousands of female golfers and computer users in this country, and they must be getting pretty cheesed-off by the constant stream of games which force you to tee off from the mens' tees and play a round from the point of view of a blond-haired hulk. Software producers please take note!

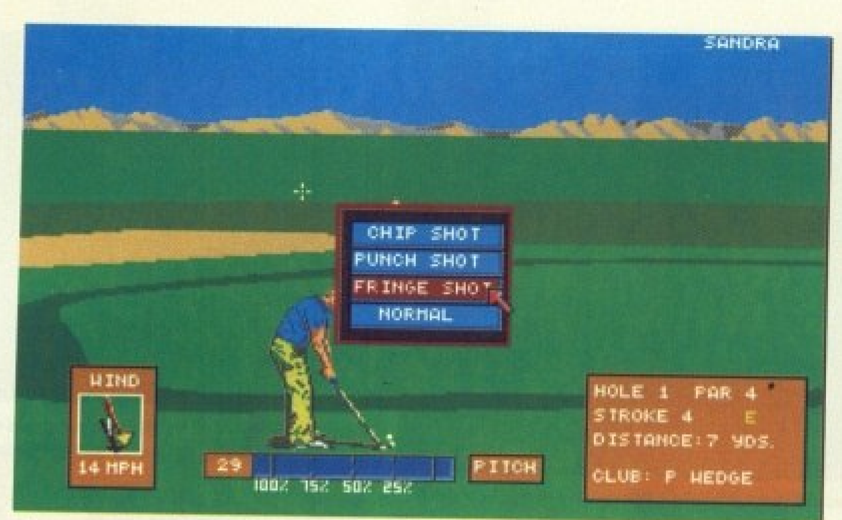
OK, ranting aside, the rest of the game is excellent. Once the ball is actually struck, it soars off into the distance and it is at this point the game boosts the atmosphere with a very useful gimmick. The 'camera angle' switches to a point ahead of the ball looking back down the fairway, and your ball screams into view to land with a thunk, a thud, or a splash.

This simple trick gives the player a far better look at the shot than if it just disappeared into the distance, and does more than any other gimmick I've seen to convey the atmosphere of God's own sport.

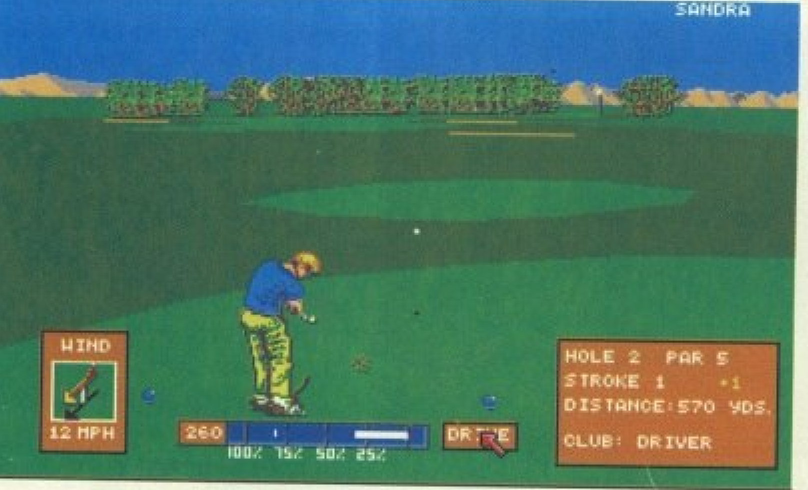
The pseudo-3D putting surface, which you can rotate to examine the borrow, is useful if not very pretty, but I've yet to discover how you shut it off, and it can be annoying when it pops up for a pitch from just off the green. That said, putting is as difficult as it deserves to be, and on those tricky American greens too!

All in all, it's still a golf game, but EA's PGA Tour Golf would be a first choice on my list of sports sims.

Sandra Foley



There are several handy special shots to choose from



OOPS! A nasty slice can be the result of a mistimed shot

Graphics

Plain for the most part, but the switching camera angle is a real winner.

Sound

Almost non-existent except for one of the worst loading tunes I've ever heard.

Gameplay

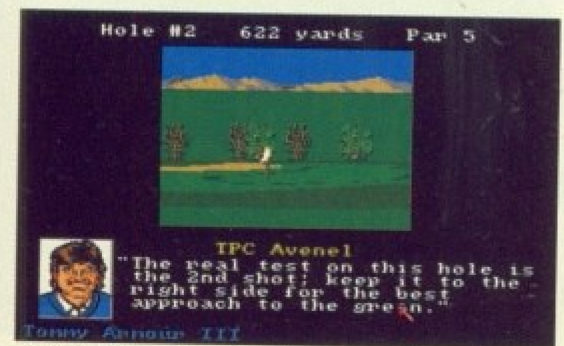
More of the usual, but with a little bit extra. Difficulty level has been pitched just right, and the tour element is good for long term appeal.



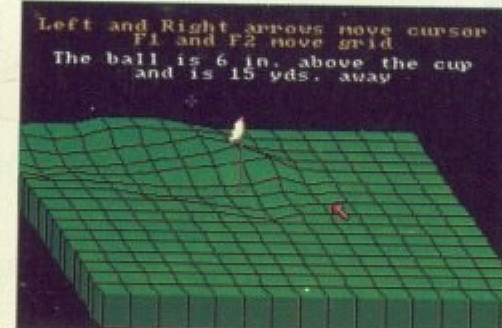
Take a swing with EA today!

PGA TOUR GOLF

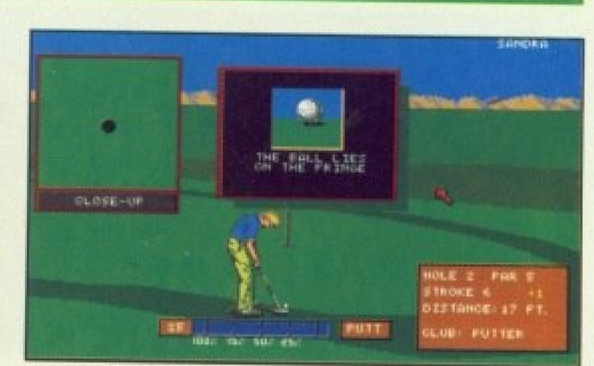
Publisher: **Electronic Arts** Price: **£24.99**



There is advice on hand from the pros



The 3D contour map of the green is very useful

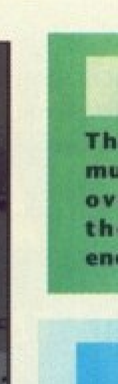


There's plenty of information on ball positioning and your lie

Scalextric on screen

SUPERCARS 2

Publisher: **Gremlin Graphics** Price: **£24.95**



Jump that bridge! You'll need a run up or else it's a sticky end 12 feet below

Lob a missile, bump them off the road, and if that doesn't work, park acorss their path

Amiga games players who've been around for a year or so will no doubt remember the original Supercars. It was far from unique as an overhead view car racing game but it did have a few features that lifted it out of the ordinary.

Well, fans of the genre can jump for joy now because Supercars 2 is here. And the most exciting thing about the sequel is that it caters for two players at once, something that the original didn't manage. On loading you are asked to select either easy, medium or hard level then it's foot to the floor time.

The circuits start easy, with plenty of straight sections and nothing especially testing. The game is viewed from above and the style of the original is maintained as much as possible. You (and a friend if applicable) are represented by a coloured car. The computer cars (and there are a lot of them on most levels) are all white.

To call Supercars 2 a race game would do it injustice because much of the game revolves around combat. After each race you enter the shop (assuming you were placed in the top five cars) and the winnings from the race can be squandered on repairs for the car and extra armour and weapons to increase your chances of winning the next.



Buying weapons with the winnings can earn you money if you're a shrewd speculator

In each race there are only two weapon types available to you, and they need to be chosen with care. The standard types are front and rear shooting missiles which are activated by pushing the joystick forwards or back respectively. In the shop either of these missiles can be exchanged for homing missiles (deadly and very accurate), spinning missiles that circle the car for a couple of seconds, and land mines.

Other add ons include armour (reduces damage to the car from deflections), a larger engine size and a battering ram which causes damage to the other cars when you collide with them head on. This may come in very handy when you're in a tight bunch. As you need to fight for positions, every dirty trick in the book will be useful. Don't feel at all guilty because the computer drivers will pull no punches, rest assured!

Later levels feature everything you ever wanted from a Super-Deluxe Scalextric set. Jumps, lumps, crossovers, chicanes and opening and shutting gates as well as a choice of routes on certain levels makes for some really tough races.

Playing with another Human player means you are vying for the top spot with one extra contender about, which makes things a bit tougher. Picking on each other will only mean dropping out of the top five though so avoid it at all costs.Supercars 2 is a very worthwhile game.

John Diglan

Graphics

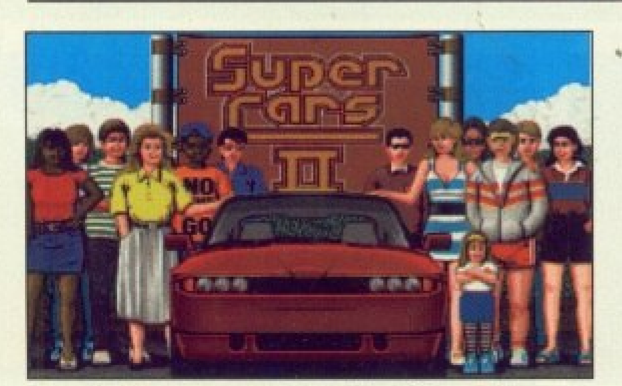
The graphics are not much of an improvement over the original but then they were good enough to begin with.

Sound

Sound is limited to explosions and revs in game and a tune in the shop section.

Gameplay

Addiction is simply not the word, though with only ten tracks per level I'd doubt that you'll be at the keyboard forever. Well worth laying out a pony for.



The calm before the storm: glory, girls and hot machines



RACE RESULT

Winning time - 1.41.9 R

Pos	Name	Prize	Pts
1st	T. Hairy Bootson	5000	5
2nd	player 1	4000	4
3rd	Nijel Mainsail	3000	3
4th	Alain Phosphate	2500	2
5th	Ayrton Sendup	2200	1
6th	Rissole Brookes	2000	0
7th	Nelson Pickets	1800	0
8th	Crashhard Banger	1700	0
9th	Hickey Louder	1600	0
10th	Stag Bloomvest	1500	0

2nd place earns you 4 championship points



We need you!

So you think you're pretty mean with a joystick eh? Then why not prove it by sending in any cheats or tricks that you may have found for your favourite games. We're particularly interested in tips for brand new games such as those reviewed in this issue, so get writing. Who knows, you might even win something!

Send your tips to: *THE TIP SHOP, Amiga Computing, Europa House, Adlington Park, Adlington, Macclesfield SK10 4NP. Come on, stop reading and get writing!*

We all like to think that we're pretty mean joystick wagglers, but even the best need a little help occasionally. Take a trip to The Game Zone Tip Shop with Jason Holborn

JAMES POND

The name's Pond, James Pond. Licence to kill, 007. If you find my antics a little too much to manage, then type MR2 when the mission starts. A sweet little angel will appear and you'll now be completely indestructible. Even 'M' couldn't come up with a better cheat than this!

E-SWAT

Life's tough on the streets, so this handy little cheat will come as a welcome help. Pause the game and type JUSTIFIED ANCIENTS OF MU MU. The screen will then flash and you will have 99 credits. Something tells me the programmer is into the KLF!

TURRICAN

Fancy 99 lives? If so, then get yourself onto the hiscore table and enter your name as BLUESMOBIL. If you then start another game, you'll have all those luverley lives, making it easy to reach the high socres again!

TURBO ESPRIT

If you can't quite handle the performance of Lotus' sleek turbo street racer, then you can activate this little cheat mode which allows you to qualify for races without having to be in the top ten. In two player mode, enter player one's name as FIELDS OF FIRE and player two's name as IN A BIG COUNTRY. Aren't they U2 songs? (Nope, Big Country songs - Ed)

ROBOCOP 2

Robocop's prime directives probably wouldn't agree with cheating, but who cares anyway? Type in SERIAL-INTERFACE (with no spaces) on the title screen to access the cheat mode. You can now restore your energy by pressing F9 and skip forward to the next level by pressing F10. Your move punk!

AWESOME

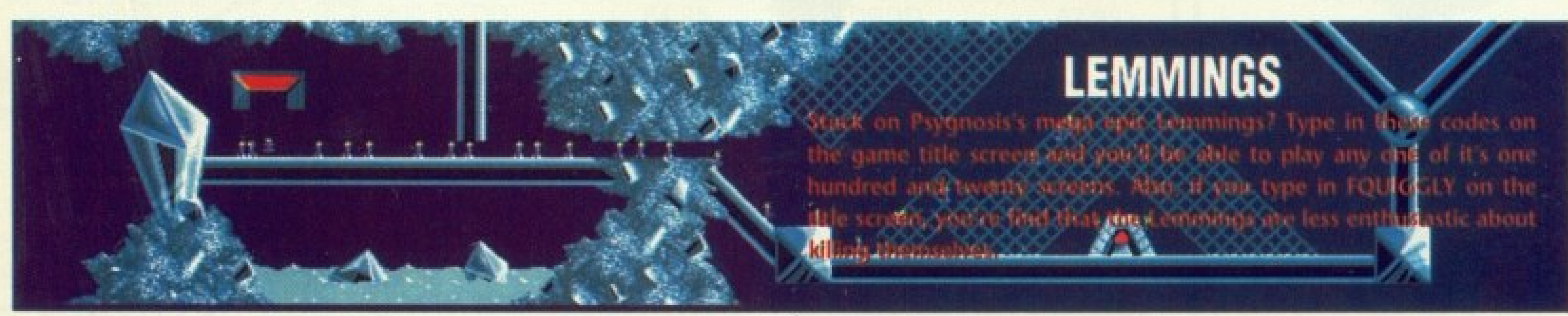
It may be jolly pretty, but there's no doubting that it's pretty tricky too. If you need a little help, then press the plus symbol on your numeric keypad and press the fire button on your joystick. If you then start the game, pressing F1 will turn off your enemies, F6 will replenish your fuel supply and 1 through to 10 (press the 0 key for 10) will allow you to access different weapons. Go for it!

HORROR ZOMBIES

If the creepy crawlies are getting to you, then type in BOGEYMAN for infinite lives.

To skip levels, type CHEATMODE during play and then press 'F10'. You will then be taken straight to the next level.





LEMMINGS

Stuck on Psygnosis's mega epic Lemmings? Type in these codes on the game title screen and you'll be able to play any one of it's one hundred and twenty screens. Also, if you type in FQUIGGLY on the title screen, you're find that the Lemmings are less enthusiastic about killing themselves.

LEVEL	FUN	TRICKY	TAXING	MAYHEM	LEVEL	FUN	TRICKY	TAXING	MAYHEM
01	–	HCGOLONPDX	MFMCGKLNFO	NJMNLFELHX	16	CINLMDLQCQ	LMBIJOOOEJ	HMDLGKOMGT	IJHMEMGKIO
02	IJJLDNCCCN	CMOLMGLQDJ	GMCOKLMOFY	HMFJFINMHQ	17	CAJHLFLBDT	KCCOMMLPEU	MELGCKLNGN	NHMDIFALIV
03	NJLDLCADCY	CCJJLDMBEX	MCANMMFPFO	MFHFAJLNHX	18	KJHGLBCDQ	CKNLMDMQEV	DLGIJOMOGV	HMDIFINMIO
04	HLLHCIOECU	IKHLDMCCEN	CINOMGMQFK	FHFIJLMOHQ	19	NJNNHCCDDT	CCKHNNKBFR	LGENMMDPGU	MDIFAJLNIX
05	LDLCAJNFCK	OHNLIBADEP	GEKKNMJBGJ	HFANLMFPHN	20	HLFLCNNEDW	IJJLGMCCFS	GKNNOLHQGS	DIFIJLMOIQ
06	DLCIJNLGCT	IDLMCIOEEU	KJILDLGCGU	FINLMFHQHW	21	LFLCCJLFDN	OHLFMCADFN	GGKHNNHBHY	IFANLMDPIN
07	LCANLLDHCO	LDMCCJNFEP	NHNLJGCDGY	FAJHLDIBIW	22	NHCKKONGDQ	ILFMCKOEFJ	KJJLFNGCHK	FINLMDIQIW
08	CINNLDLICJ	EMCIJMLGEW	ILDLGMOEGN	IJHLDIFCIP	23	LCCNMLFHDU	LFMCEJMFFT	NJLGNGADHW	FAJHLFIBJJ
09	CEKHMDLJCO	MCEOLLDHEW	LDLGCJOFGV	NHLDIFADIN	24	CINLLGLIDL	GICKKOLGFK	KNOHGOOEHL	IJHLFIFCJS
10	MJHMDLJCO	CMNLLEMIEP	ENGIJNLGGO	HLDIFINEIV	25	CCKHMGHJDM	MCGNMLFHFL	LFNGCJNFHJ	NHLFIFADJP
11	NHMLHCALCT	CEKKOLIJEK	LGANOLDHGJ	LDIFAJLFIO	26	IJHOOHCKDM	BKOMNFIIFO	GNGIJLLGHP	HLFIFINEJY
12	JOLHCMOMCV	IKHMEMCKEX	GKNOLDLIGU	DIFIJLLGIX	27	NKMFLCALDV	CAJJMGMJFS	HFANLLFHHU	LFIFAJLFJR
13	MDLCAJLNCR	OJOLICCLEN	GAJIMMHJGX	MGCNNLEHIO	28	HOOHCIOMDT	KKKOOICKFV	FINLLFHIHN	FIFIJLLGJK
14	ELCIJNMOCN	HMDMCIOMEM	OKHMDNGKGT	FINLLDIIIN	29	OOHCGJLNDR	OHMFMCALFW	FAJHMFHJHP	IFANLLFHKX
15	LCENLMDPCL	MDMCGJMNEL	OIMELGALGK	FAJHMDIJIP	30	GLCMJMMODT	HMGMCMOMFU	IJHMFMFKHG	FINLLFIIJQ

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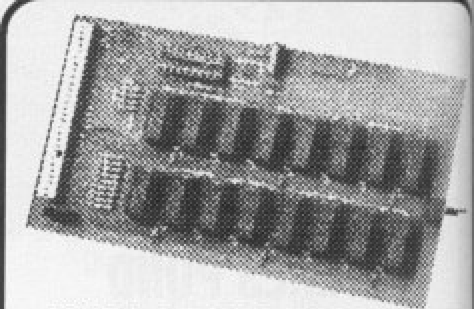
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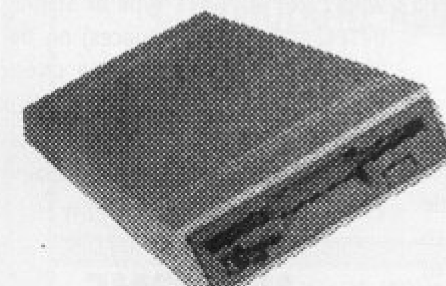


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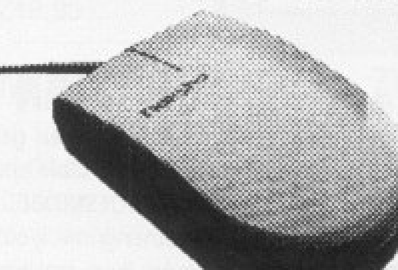


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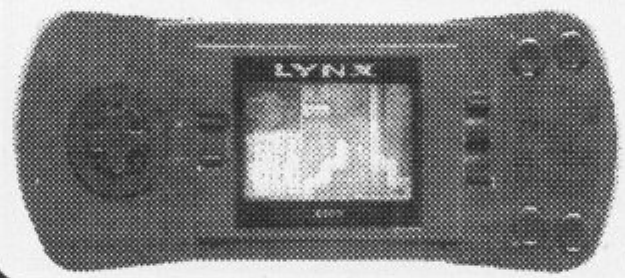
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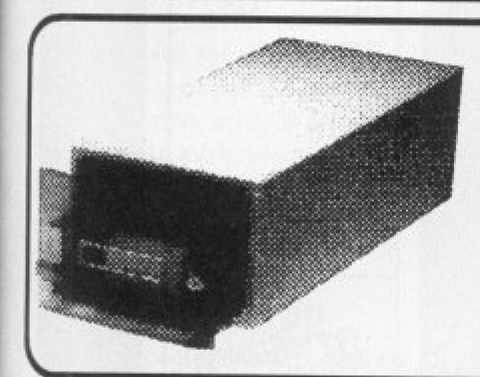
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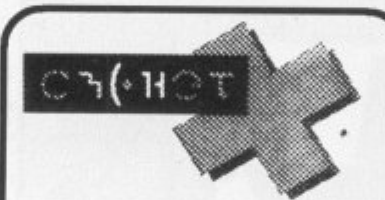
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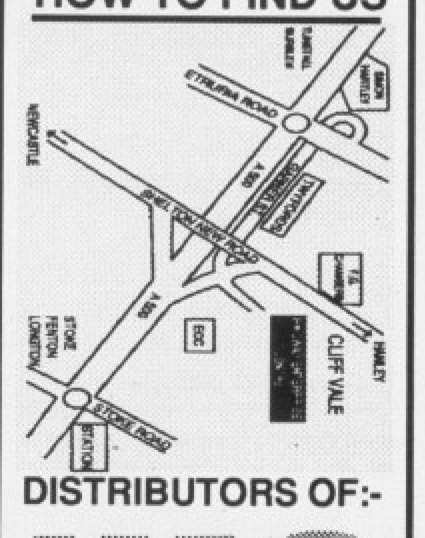




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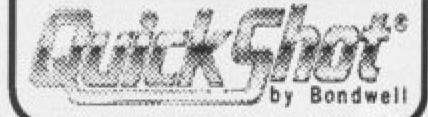
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Words with a smile

ProWrite v3.1 has many more pros than cons, as Stevie Kennedy found out

ProWrite from New Horizons is the big brother of the QuickWrite wordprocessor we reviewed last month, and is now widely available in its latest version 3.1 release.

One of the US's older wordprocessor families, ProWrite has never really caught on in this country, but with its £129 price tag there's no reason why it shouldn't be competing with the likes of Protext 5.

In common with packages such as Excellence! 2.0, ProWrite is intuition-based and designed for mouse users. There's no need, therefore, to use the keyboard for commands and much of your editing work, but a comprehensive array of keyboard shortcuts is available to diehard rodent-haters and those to whom speed is essential.

Hype-wrap

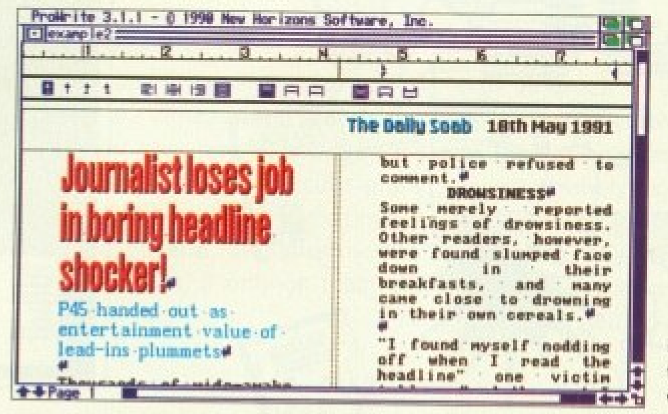
For the beginner in wordprocessing, ProWrite should be a dream. It is easy to use, friendly in operation and appears to be almost bug-free. I found I needed to consult the manual only once during the creation of a document which included multiple columns, imported graphics, a variety of fonts and styles, and headers and footers.

I was eventually forced to open the manual by the packaging's claim that it was possible to 'wrap text around pictures'. This to me means the same as auto-flow, the facility whereby text is automatically fitted around any graphic, no matter how irregular its shape, and would amount to a major plus for a program in ProWrite's price bracket.

Despite a very close inspection of the otherwise helpful manual, however, I couldn't discover how this was achieved, and can only conclude either that the claim is misleading or the manual is incomplete.

The only way to avoid text printing on top of a graphic is to set the margin marker by dragging it to the edge of the picture, and this is hardly a text wrapping facility.

Apart from this gripe, ProWrite does everything that's claimed for it, and has many useful features which make up for the hassle of finding out about the non-existent text-wrapping. Some of these, such as clicking on the bar at the bottom of the screen to move to any page, have apparently been borrowed from MicroSoft Word, and most of the others are new to packages in this price range.



No need to stick to drab styles with Prowrite

Quark Xpress it 'aint

New Horizons quite rightly avoided the use of the term 'DTP' when they set out the blurb for ProWrite. However, programs with fewer DTP-like features have lost no time before waving this particular flag, and ProWrite would cope reasonbly well with small DTP tasks such as club newsletters.

Support for multiple columns and imported graphics allows the user to put together rather interesting-looking documents, although if you want to import text into a document whose layout you have just set, you have to open it as another document, then cut and paste it in from there. It's the program approach to colour printers, however, which gives it an edge in the page production stakes.

True WYSIWYG

Instead of trying to cope with full-colour graphics on screen, which at first glance would have been a big selling point, ProWrite concentrates on the use of the same eight colours which the average colour dot matrix printer, such as the LC10, uses when it tries to reproduce a screen image.

In this way, ProWrite offers true WYSIWYG, because when you import a graphic for use in your document, it is converted into a dithered image made up of the eight colours, and should be a very accurate representation of what you will see on paper.

The spell checker suffers from the same problems as the one used on QuickWrite in that a whole document is checked from start to finish, one word at a time, and there is no option to first sort the words into alphabetical order. The process is therefore a good deal slower than that used by Protext.

As if to make up for the substandard spell checker, ProWrite offers an excellent Thesaurus which claims to include over 300,000 cross-references and works at great speed.

The word list could perhaps be a little longer (it failed to recognise 'computer' or 'software'), but when used on standard English words, it was a joy. When given the word 'communicate', for example, it replied with a list of 99 associated verbs!

More macros

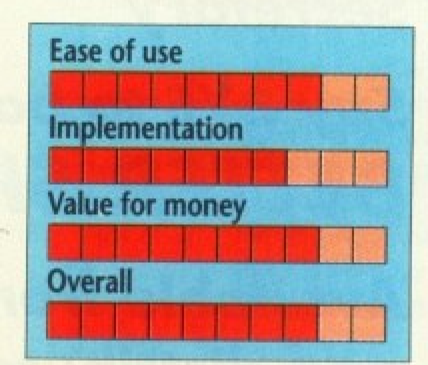
For advanced users, and those lucky enough to be using Workbench 2.0, ProWrite makes good use of the ARexx multi-tasking language. If you already have this and are familiar with its use (Workbench 2.0 incorporates it), then ProWrite offers an extensive list of macro commands which should enable very sophisticated operations to be tied down to a couple of keystrokes.

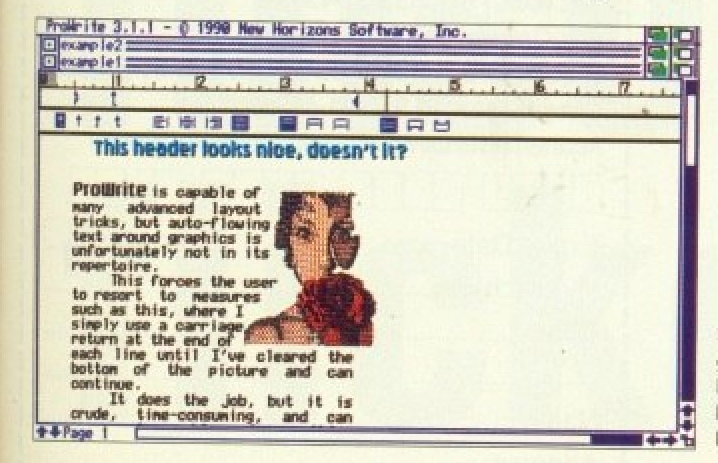
The beginner will find this option rather inaccessible, so it would have been thoughtful of New Horizons to include the simpler 'recording mode' macros for the benefit of mortals. In an office environment, however, any number of machines could be configured to run ARexx with a predefined set of the most useful macros as requested by the users.

Conclusion

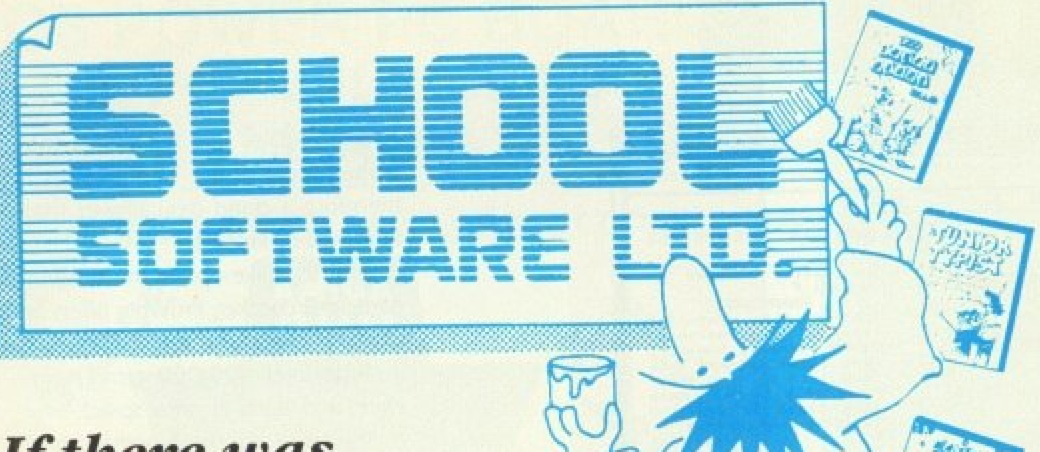
ProWrite is a wordprocessor which deserves to succeed, and should provide some much-needed competition for Protext 5.

ProWrite is a product of New Horizons Software, Austin, Texas
Available: Now
Supplier: Silica Systems
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ProWrite's graphics handling has its limits



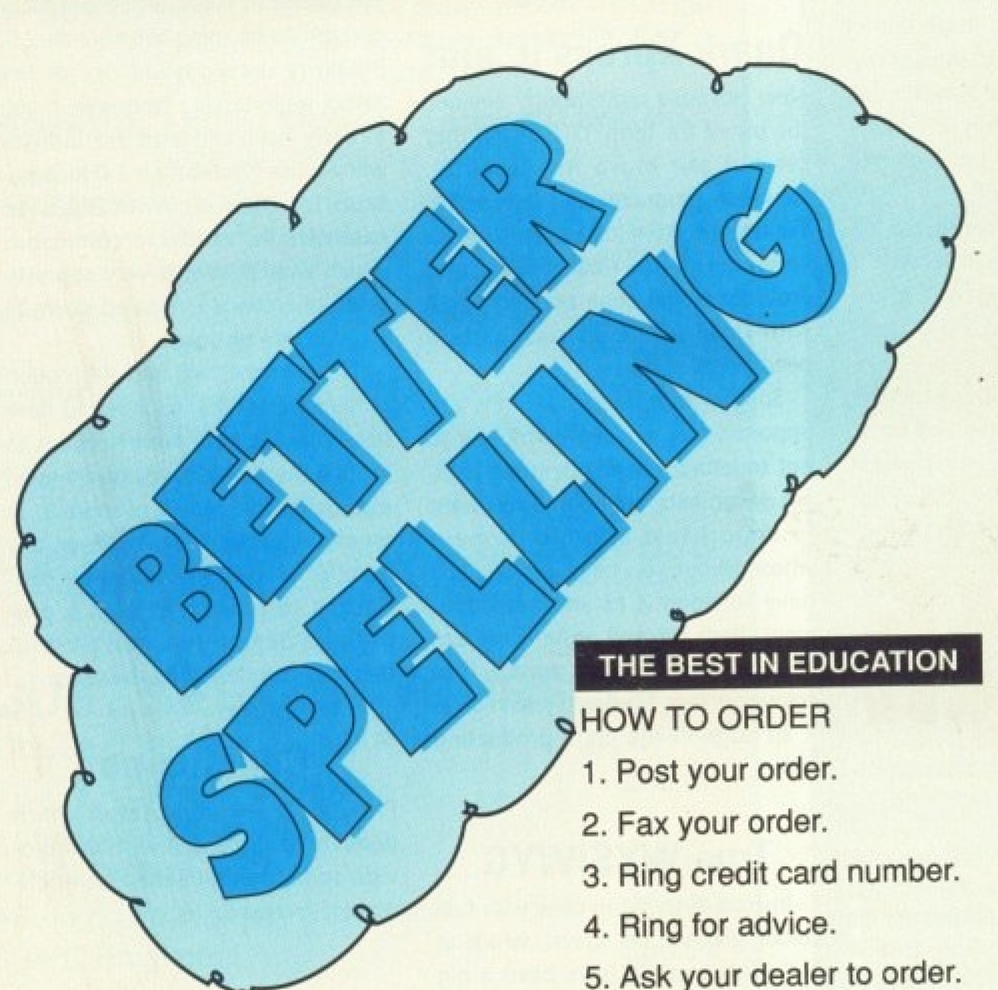
If there was an award for educational software, it should go to School Software Ltd. said ST Format



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Fast and fulsome flickers

Stevie Kennedy checks out the latest kit from stateside peripherals wizards, ICD, and discovers techie heaven

The Amiga has always been a machine to which users have added extra bits, and as far as quality peripherals are concerned, they have been fortunate in the available choice. Since the Amiga began to take off in a big way back in 1988, third party manufacturers have been lining up to launch everything from hard drives to digitizers, and U.S company I.C.D has often been at the head of the queue.

The company will be familiar to most A2000 owners, who have been enjoying the company's add-ons for that machine for some time. A500 users, however, have had to content themselves with ICD's 6Mb trapdoor-mounted AdRAM board.

Sales of this unit have suffered in the price war because, although of a high quality, it is a lot more expensive than the popular 1.5Mb boards.

ICD now looks set to make a push into the A500 market with its three most recent launches – AdSpeed, AdIDE, and Flicker Free Video – all of which are aimed at the serious and hobbyist user, and all of which are attempts to solve a particular problem. The approach is unimaginative – but purposeful, and promises to bring success, if only on technical merit.

Storage

Not as much of a problem as it might have been two years ago, the A500's storage needs have been met by progressively bigger and cheaper hard drives as the market has expanded. The drives we've seen, such as the A590 and the GVP units have been getting faster, but most have remained eyesores sticking out the side of the Amiga and eating up valuable desk space.



Owners of A2000s or A1500s have a much neater time of it because their larger machines can support hard drives internally on card slots, but the A500 has not had this option until recently.

The advance of miniaturisation brought about by the boom in the portable computer market has now made it possible to fit hitherto large amounts of storage into a very small space, and one result is the AdIDE interface and 20Mb hard drive.

The ICD unit is neat, small, and incredibly cute, but for the life of me I can't figure out who would want one. It fits quite easily into the Amiga's case. It will auto-boot with reasonable access time and can kick up a bit of dust when pressed, but the whole ensemble smacks of a very desirable technical answer to a problem no Amiga 500 owner has yet asked.

The ICD engineers have managed to bring a 20Mb hard drive with a respectable 25ms access time to A500 owners, in a space that is about one tenth the volume of the A590 - the drive will literally fit in a cigarette packet - but the ICD marketing people appear to have identified a market of very small proportions.

For those in need of an Amiga 500 hard drive setup that is more portable than other combinations, and those whose desk space is extremely scarce, the AdIDE and hard drive is a timely offering. At a retail of £387, however, AdIDE is considerably more expensive than the A590 which, while being a little slower and a lot uglier, is still a solid alternative, and one which offers RAM expansion possibilities.

Speed

Speed! The word is on everyone's lips these days, as if life itself depended on adding MIPS to your micro. It has almost become perceived wisdom that the standard Amiga – the one the shop assistant told you was extremely powerful – is past it as far as advanced applications go.

First of all, it has to be said that the 'perceived wisdom' is arrant nonsense. The Amiga's 68000 processor

is a perfectly good piece of silicon for the tasks to which the home user puts it. Where it's speed limitations show up are in areas for which the Amiga was never designed, and in which it has always looked a bit pedestrian.

AdSpeed, at £173 (including new rate of VAT), is the cheapest accelerator so far released, but is also the one with the lowest specification. It consists of a 68000 processor exactly like the Amiga's processor except it is rated at 14.33MHz, twice the clock speed of the original and an on-board 'memory cache' which speeds up routine processor tasks.

The chip's clock speed is nothing new. Faster-than-normal 68000s have been available for a while, but they have been impractical for general use because speed is a more complex matter than bare rate of knots.

The Amiga system is designed to run with a processor at 7.16MHz, and if another speed is used without technical fixes, timings will be out of order, memory accesses will be out of sync, and all communications between the fast CPU and the slower custom chips will be put at risk.

Switching in style

To rule out as many compatibility problems as possible, AdSpeed has a 'fallback' mode, controllable through both hardware and software. A jumper setting on the board itself

Dodgy Displays

The Amiga has one particularly annoying drawback that is constantly being thrown in the faces of its users when in hot dispute with Mac and ST aficionados. Quite simply, the standard non-interlaced Workbench screen modes are insufficient for high-end professional uses such as CAD and DTP.

The Amiga user can partly deflect such criticism by reminding his or her Mac-loving chum that with interlace, the Amiga can double the number of horizontal lines in its display, and achieve a very hi-res display.

Unfortunately, if the user has no flicker fixer, those irritating Macophiles usually have the last laugh when they realise how abysmally painful it can be to operate an Amiga in flickering interlace. This is where the flicker fixer comes in.

ICD's is one of the few flicker fixers available, and the first which will fit inside an A500. To fit it, you must remove the Denise display chip, mount it on the flicker fixer board, then plug the board itself into the vacant slot in much the same way as the AdSpeed plugs into the 68000 socket.

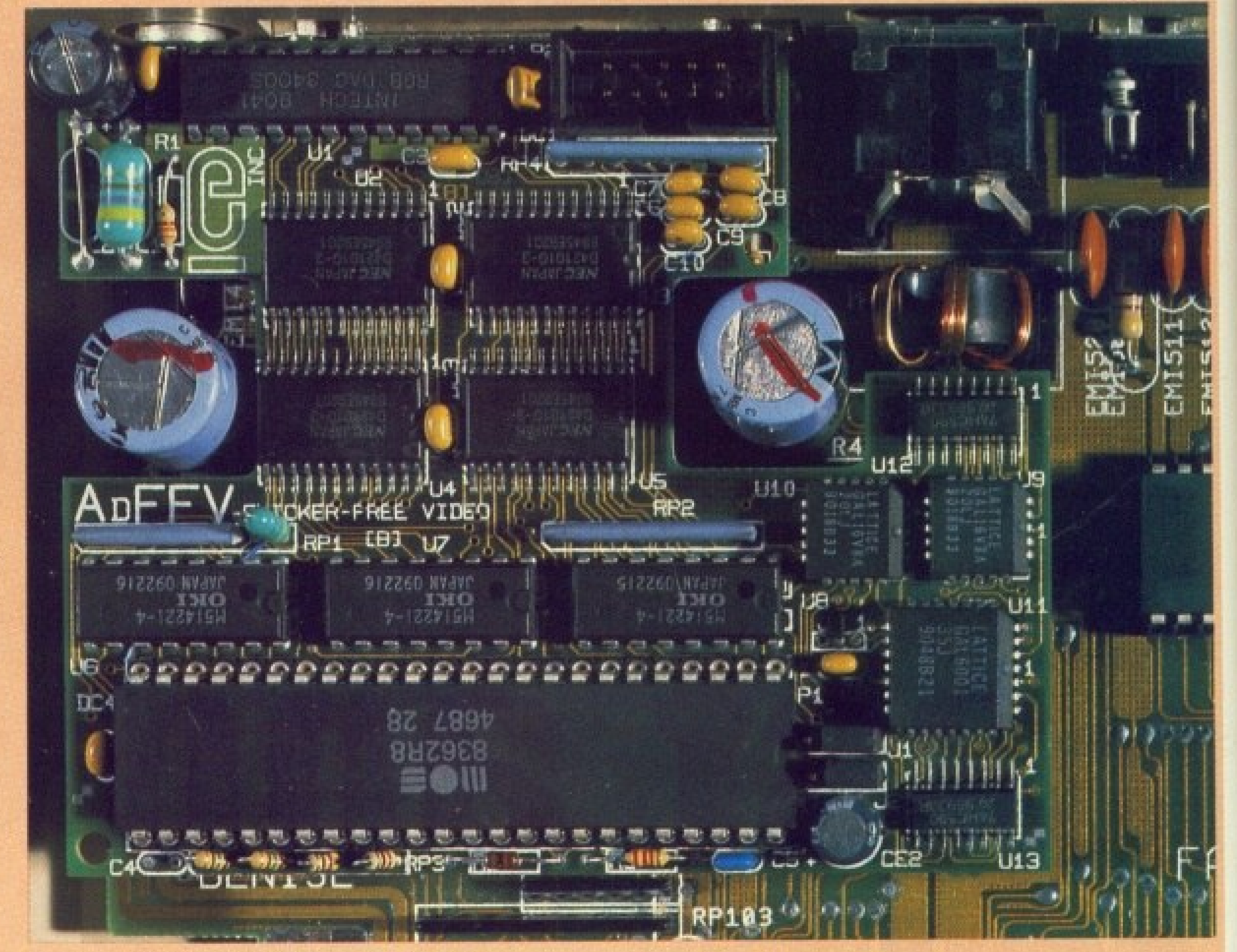
It means that fitting Flicker Free Video will invalidate your warranty, but this is a far more inviting option than permanent eye damage, the inevitable result of using interlace for any length of time. On the plus side the board gives a rock-steady display, and once fitted should be transparent to the user.

Cathode cardiac!

It is at this point the user discovers the overheads invloved in Flicker Free Video or any other flicker fixer, and the shock can be quite chilling. A decent multisync monitor, without which the card is useless, can cost up to £600, and there's no way of getting round the necessity of buying one.

Even if you manage to find one of the discounted models in our ads (and there are some to be found), the total cost of Flicker Free Video and monitor could quite easily top the half thousand mark. Power Computing are offering a bundled package of card plus NEC monitor for £510, but even with this discount the user will still have to blow a large hole in his or her bank balance.

The semi-professional or corporate user should find the price tag a little more comfortable, but even then it raises the price of a DTP-capable Amiga system to levels at which it would struggle to compete against the low-end Macs and 386sx PC's.



Flicker Free Video gives a rock steady display, and once fittted should be transparent to the user

Why does it flicker?

A standard Amiga screen mode is output to a monitor or TV whose horizontal scan frequency (i.e the number of times the scanning beam traverses the screen in one second) is 15.75KHz, and 50Hz vertically. This gives the standard 256 pixels high PAL screen.

When this no longer suffices, the screen must be 'interlaced' so that one full screen of scan lines is produced every cycle, and another is shown half a scan line further down on the next scan. This produces a high frequency flicker because the two are never on the screen at the same time.

Flicker fixers work by taking the two signals and combining them into one steady display. As this is impossible at the original scan frequency, flicker fixers must produce their output a twice the frequency, or 31.5Khz.

Unfortunately, the standard Amiga monitor will not 'sync up' to this frequency, so an expensive high-quality multiscan monitor must be purchased to make use of the flicker fixer.

determines which mode of operation (7MHz or 14MHz) the board will boot up in, and a small program which you can run in the background from your startup-sequence allows the user to switch between the two without having to re-boot.

This is more useful than many boards, whose fallback modes incur a re-boot as the CPU used is switched from (for example) a 68030 to the 68000. As AdSpeed uses the same processor for both speed modes, it is easier to switch speeds, and as even at the faster speed it uses exactly the same instruction set as a standard 68000, software incompatibility is almost non-existent. If you find any problem software let us know!

The 32k on-board memory cache is what gives AdSpeed its bite. The technique of mounting a small amount of high speed RAM on the processor chip, and dedicating it to the most time-efficient tasks has been used in 68020 and 68030 chips before now, but this is the first time it has been used on a cheaper replacement 68000.

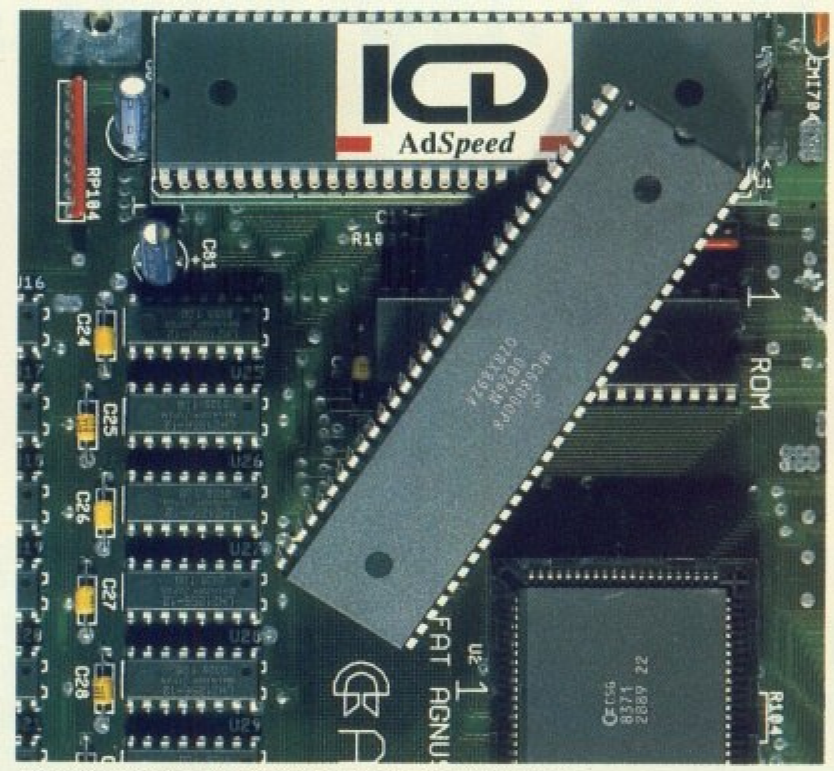
Basically, 32k of RAM is set aside as a data/instruction cache to hold common code loops and machine code instructions so that they can be accessed by programs in the shortest possible time. At 14.33MHz, AdSpeed can just dump things into the cache memory instead of having to wait for memory accesses or other chips to catch up, and can then get on with something else.

DIY go-faster

For the new Amiga owner with a morbid fear of technical activities (let's not be shy – that's a high percentage of us!), AdSpeed is unfortunately one of those products which invalidates the machine's warranty. To fit it, the case must be opened and the original 68000 chip levered out of its socket, an idea which some of you might not be too keen on, but one which you'll have to live with if you want to upgrade your Amiga.

Installation is otherwise a simple matter, and the card behaves very well once it's in situ. As a no-fuss no-frills accelerator, AdSpeed works very smoothly and we've so far failed to find a single piece of software which doesn't like the 14MHz mode.

If it was selling for £50 less than its present retail price, AdSpeed



AdSpeed uses exactly the same instruction set as a standard 68,000, so software incompatibility is almost non-existent

would be an unmissable buy for the speed-hungry hobbyist. As is stands, however, it falls short of Blue Chip status on value-for-money terms, but only just.

Hard Error!

Unfortunately, there are two hard drive set-ups which don't entirely work with AdSpeed.

When you use a GVP drive that has extra memory on-board, it makes DMA (Direct Memory Access) calls to its own memory without telling AdSpeed, thus rendering the cache contents out of date. The problem only occurs when you use both the drive and the extra RAM, and GVP has promised to rectify the problem with a ROM upgrade.

Users of Xetec hard drives will also encounter problems because the auto-boot sequence on these drives does not work properly when used with an accelerated processor. Again, this problem will eventually disappear when Xetex upgrade their software, and the user can always auto-boot in 7MHz mode before switching to 14MHz.

Overall, compatibility with hardware and software is as good as could be expected, though users of either of the above systems might want to think twice about processor accelerators.

Conclusion

ICD has attacked two very real problems in the shape of speed and display enhancement, and one rather ethereal concern with A500 internal hard drive storage. Their solutions are of a quality and level of technical competence to raise them above the products of many other companies, and all work very well in their own right.

As consumer products, which is how they must be judged, the AdSpeed is the most desirable, with the flicker fixer coming second by a few lengths and the internal hard drive struggling along at the back. I suspect the first two will succeed, especially AdSpeed, but I would be surprised if too many punters were to be found in the act of jumping summersaults over the hard drive.

A quart into a pint pot

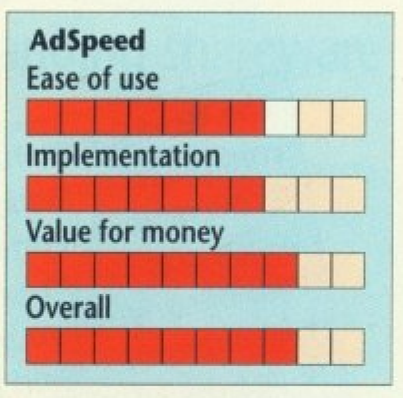
You can now fit a wide range of peripherals into the A500's casing, but there is only so much room in there, and a large proportion of the peripherals are competing for the same living space.

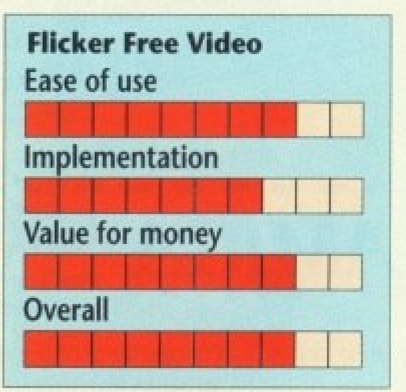
The 68000 slot is currently the place to be in a 500, with accelerator cards vying with hard drive interfaces for the prime spot of real estate. The various bits of hardware, however, do not have to compete directly to cause a clash.

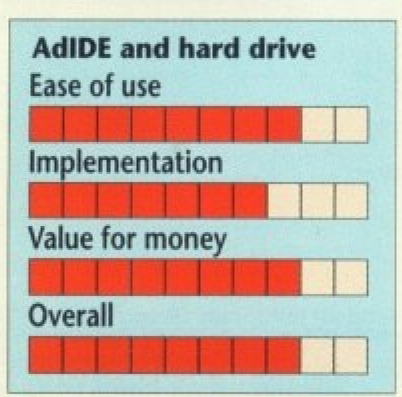
We found, for example, that neither of the large accelerator boards examined in our April issue would fit into an A500 which contained an ICD AdRAM board because the board connected over the Gary chip got in the way. Such restrictions on space serve only to highlight the fact that cramming peripherals into a 500 is mainly a crisis measure for those who would like to upgrade to a 1500 or 2000 but can't afford to get the cash together, or those who love expensive and very clever toys.

Product Information

AdSpeed, AdFFV (Flicker Free Video), and the AdIDE with internal hard drive are all products of I.C.D Inc.
Available: Now
Supplier: Power Computing (0234) 843388
Price: AdSpeed £173, AdFFV £285 or £510 with VGA monitor, AdIDE and 20Mb internal HD £3







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Find out more about The WorkStation – turn to Page 76

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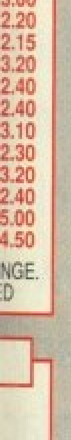
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Going for Gould

What does Commodore have up its sleeve for the future? How will it meet the challenge of Europe in 1992? What hopes does it have pinned on the new CDTV? Donald Maple went straight to the top and asked Irving Gould, Chairman of Commodore International

Q: *The Amiga chips were designed in the mid-80s. What does the future hold?*

IG: There are constant changes. As a matter of fact there is a new chip set for the Amiga we've been working on now, I guess, for almost two years that should be ready this fall.

Q: *And what will that provide? A better platform for the graphics?*

IG: More icing on the cake. More colours, more chip RAM and that sort of thing... You have to stay with the state of the art.

Q: *So that's the direction you're taking. You're trying to position the Amiga for when multimedia really takes off?*

IG: Amiga covers the full range. We'll give the consumer multimedia in the CDTV and the professionals or the offices – most offices and schools and everybody else – are going more and more towards interactive, true multimedia platform.

Q: *How is it selling in the business area at the moment? Have you made many sales?*

IG: Very much so! It's penetrated the market (which) so far is rather small, but you take North America where we're not a major factor like we are in Germany. But if you take certain small markets... NASA uses Amiga. The Berkley Linear Accelerator, advertising agencies, TV studios, graphic artists... they're all using Amigas.

Q: *And the video toaster...*

IG: The video toaster enhances that once again.

Q: *So it's going for the leading edge market?*

IG: People who, instead of paying $100,000 to do something, can pay $5000 or $6000 and get the same performance.

Q: *Which they thought was impossible to do.*

IG: Exactly!

Q: *Do you foresee licencing the technology? Will there be Amiga clones?*

IG: I don't think we are interested in licencing the technology for computers. We might be interested in licencing the CDTV platform.

Q: *But not the Amiga itself? Third party or something?*

IG: I don't think so. I never like to use the word never...

Q: *Presumably that's because you want to keep the Amiga in-house. You want to be able to develop it the way you want to develop it. But, wouldn't it be nice to have somebody else support the same platform? Make it a more "serious" machine?*

IG: Yes, but it all depends who your partner is! It is becoming a serious machine. Computers are only sold for what they'll do for you. Otherwise they're just a door stop. And that means the applications and the software. So you have to marry the two together. To do a certain type of software you have to have a platform of that power and the capability. That's what makes CDTV what it is because there is no other platform, no other technology outside of the Amiga that you can do this with at a consumer price.

> Gould on the PET standard v MS-dos:
> *'We were the first... We goofed'*

Q *Off the shelf, and you don't need extra hardware...*

IG: And that box – we're not telling anybody, but it's a full computer in there. There are many peripherals that will be coming for that machine that will astound you.

Q: *How do you see the CDTV developing? What's its next stage?*

IG: (Shrugs his shoulders implying "anywhere") Well, first of all the next stage will be full motion video.

Q: *When would you anticipate that?*

IG: Let me make this statement. They're still trying to decide on the standard. Whenever they set the standards we'll be there.

Q: *Are you going to use DVI chips or are you going to develop your own?*

IG: No, they're talking the JPEG standards. And as soon as JPEG is resolved I can tell you that we will either be the first or one of the first.

Q: *It's not even on paper yet, is it?*

IG: It's getting close. But close doesn't count. Only in horseshoes and hand grenades... (Laughter)

Q: *What kind of market do you see for CDTV? Who will buy that?*

IG: The consumer!

Q: *Average consumer? Domestic?*

IG: Wouldn't it be fun, instead of having jerky motion, to have full motion. If you get the proper compression techniques you can do actual movies.

Q: *Would that be at an accessible price?*

IG: It has to be! Otherwise you're not gonna get the volumes. And you know we're in an industry... unfortunately prices never go up, they only go down. So you wanna talk CDTV today and look two years out, you're not gonna see it as high as it is today. That's the nature of our business.

Q: *About networking. You announced a special division last year...*

IG: You need specialists. That's a highly specialised area. It's been implemented to a much greater degree today. We do have a networking specialist division that we've set up in Denmark that handles our R&D.

Q: *About IBM. When Commodore decided to make PC compatibles it really bugged me...*

IG: Whether we like it or not, or whether it's the best or worst machine in the world, you can decide yourself, I have my own opinion... But, you can't fight City Hall... Most businesses throughout the world today have accepted MS-dos with all its dreariness and every-thing else... You can't change that... I'm the first one to admit. If Commodore had been on the ball the MS-dos wouldn't be. It would have been the PET standard. We were the first... We goofed...

> Gould on the CDTV:
>
> 'If I am wrong about CDTV as a consumer item it is still the greatest educational tool that's ever been invented'

Q: *Last year, after hearing how important Europe is for Commodore, I asked facetiously: When are you moving to Europe? I'm asking it seriously now. Don't you think it would be wise to have some sort of R&D base here in Europe as well as in the States to reflect the actûal number of users that you have here?*

IG: Well, we have always had some R&D development in Braunschweig (Germany) and we will continue to do it.

Q: *Even though I live in Europe I'm actually a Canadian...*

IG: So am I!

Q: *Are you really?*

IG: Of course! Canadian passport.

Q *Oh! A Cannuck!*

IG: "Oui"!

Q: *In terms of 1992 it would be very advantageous to have some sort of official R&D project here...*

IG: We do! We've constantly had a group of engineers in Braunschweig married with our American (engineers) and we give them certain tasks. We intend to keep that.

Q: *Especially in terms of 1992. You must be aware of that?*

IG: We are! That's why we're building the new facility.

Q: *That's certainly good news since then you'll be considered a local company?*

IG: Commodore has always in Germany been considered a local company.

Q: *All Amigas sold in Europe are actually made in Braunschweig. A lot of people don't know that!*

IG: When you use the word "make" you have to use it loosely.

Q: *What sort of company do you see Commodore being in five years time?*

IG: At my age? I don't know! (Hilarious laughter all around) You tell me! I think we are on to a great thing. Even the CDTV, I always said that if I gamble I always like to have one card bent (more laughter). What I mean by that is I like a bit of an edge.

If for any reason – and I don't think I am – but if I am wrong about CDTV as a consumer item it is still the greatest educational tool that's ever been invented. That I'm sure of. It is the greatest governmental tool and corporate tool. Someone asked what you can do with a repair manual. You can have the pictures. It's a real "how to".

It is also the greatest "point of sale" piece of equipment ever invented. Experiments have been going on right now in Toronto, with Canadian Tyre. They couldn't wait for the CDTV so they've been using the Amiga knowing that CDTV is coming. But you put a touch screen on this and you do anything you want.

Q: *That's amazing considering the type of people who go to a store like Canadian Tyre. They are not technically minded at all.*

IG: They have it in the sporting goods department. It'll demonstrate the equipment, it will show it... It's a salesman! It's got the sounds, it's got the pictures...

A major US corporation that's also in the retail - they brought their chairman over to look at it. They wanted very badly to sell at the retail level but they wanted it internally for what it could do for them. So, you're just seeing the beginning of something here.

And we're gonna have competitors. We're not in this world all by ourselves.

But you have to be at the leading edge and that's where Commodore is gonna get back. It's not being a follower it's being a leader!

> Gould on Commodore's commitment:
>
> 'You have to beat the leading edge and that's where Commodore is gonna get back. It's not being a follower it's being a leader'

We haven't used everything said by Gould in the interview, because we wanted to concentrate on what we believe our readers will find the most interesting parts. However, we simply couldn't resist using the following Gould quotations:

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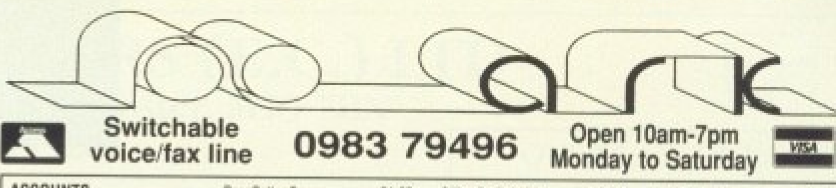
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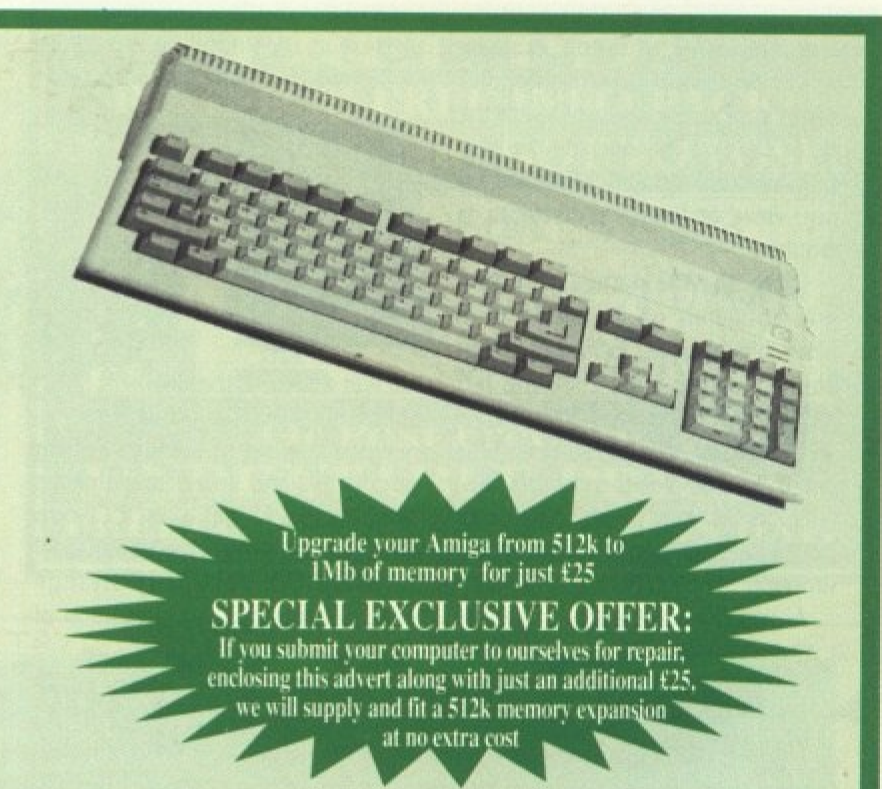
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SID's hidden talents

The WorkStation is an easy-to-use replacement for Workbench. In the first of several support articles, Paul Austin explains how to start making use of an invaluable friend

The heart and soul of the WorkStation has to be SID and the host of utilities it allows you to access. The SID within the WorkStation is a much more powerful beast than the standard empty shell supplied by PD libraries.

Our completely configured version not only handles disk management but goes on to do much, much, more.

This is done by instructing SID to access all manner of external utilities which in turn perform miraculous tasks that the original Workbench disk can only dream about.

Perhaps one of the most common requirements for most users is not the transferring of files from disk to disk, but rather to simply examine what's on them. This is sometimes not as easy as it sounds, but with the aid of SID you can examine the contents of a disk and either edit, read, run, view, or hear the contents as required.

Often the file names on a disk give absolutely no indication as to what they may be. To find out what you're dealing with click the left mouse button with the pointer at the very bottom of the screen. This opens up a whole range of previously hidden options which make probing the hidden depths of your disks simple.

As you can see there's a complete set of options for each device. Size is the first option and the one most often used, being the format in which SID initially appears. Size for obvious reasons is the most convenient display when transferring files from disk to disk.

Next in the line comes the Date option which details when the file was added to the disk. Combining the Date and Time options can be great for keeping track of old and new versions of the same files on various disks. It's worth remembering that some commercial software can have very strange effects on the Amiga's perception of time, so check the internal clock is correct before saving files which may depend on the TIME option for recognition. Use the TIME icon in SID's control panel to check.

After Time and Date comes BITS. At first glance this option appears to be a dull collection of jumbled letters. In fact it's one of the most useful aspects of SID's hidden talents. By using the BITS option you can set the flags for any file or directory you wish. In simple terms this means you can decide whether a file is readable, writable, hidden, protected and so on.

To alter the flag parameters of a file simply highlight it and click on the protect icon in the control panel. This brings up a requester displaying the flag options used with that file. For example, by altering the flags you could hide a file or directory from prying eyes, or perhaps protect it from accidental deletion. There's a whole range of options which can be applied to files and the BITS option gives a full description of each file and directory's current state.

The NOTE option is another aid to organising your files. It allows you to read comments which have been appended to either a file or directory. This is handy if you use files with only numerical differences – Pic.1, Pic.2 for example. When you first add files using this format it's easy to remember which is which, but come back a day later and you won't have a clue. At this point the only option is to view file by file until you find the one you're after, yawn...

This is where SID's COMMENT and NOTE facilities come into their own. Whenever you need to add a few essential words click on the file followed by SID's COMMENT icon and type away.

This has no effect on the file, or on the way in which it's treated by other programs, but it does make it instantly recognisable when viewed using the note option.

Last in the list comes the DESC option. This is perhaps the most useful of all the available display formats. It gives a description of each file in the current directory list – whether it's an IFF graphic, Binary file, executable file, an ASCII file and so on.

This is great for searching through faceless disks for the samples and pictures you know are in there somewhere. Of course I'm not trying to suggest you good people would poke around pinching other peoples juicy bits. Of course you wouldn't.

● **If you haven't already got a copy of WorkStation, see Page 70 for special offer.**

Menus just waiting for the right mouse

AS well as the hidden extras at the bottom of the screen there's a whole selection of pull downs just waiting for the right click on your furless friend. Move the pointer to the top of the screen and click on the RMB. This highlights a selection of pull downs. Most of the options are obvious, giving various alternatives for SID's information display.

Along with the various format alternatives there's the system menu which gives access to other utilities and areas within the Workstation, CLI, preferences and so on. Perhaps the most useful option in the various menus is FIT. This calculates if the files highlighted will actually fit into the available space on the destination disk – great for reducing wasted time and Valium dependency.

Well I'm afraid that's about all that space will allow for this month, but SID will be further explored in future support columns so watch this space. When you've finished delving into the innermost secrets of your disks click on the SHRINK icon on the top right and SID will do exactly that. When you're ready click on expand and he'll leap back to life. Wonderful!

Until next month, bye for now...





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U124 Deskbench Factory – New Icons for U122
U129 Pascal Compiler – Popular compiler
U130 Cursor V1 – Yet another

DEMOS

D03 Deadly Pursuits – Extremely good
D04/05 Kefrens Megademo – One of the best
D09 Rebels Candyland – Good
D26 Hacking Pack – Juggling unicycle
D51 Slipstream – One of the best ever
D59 Scoopex Cromium – Phenomenal graphics
D126 Colour Cycling – Fantastic effects
D146 Budbrain II – Superb
D153 Optical Arts – Nice disk
D157 Computer World 17 – Vector drummer
D162 Celtic Demos – Quite a lot

ANIMATIONS

A01 Juggler – One of the best
A04 Walker 1 – AT AT plus A100
A05 Walker 2 – AT AT plus Chopper
A09 Shark – Very good
A10 Batman – Brilliant
A11 Puggs In Space – Need I say anything
A12 Probe – The most famous
A16 Fantanims – Demo of commercial pack
A18 Startrek Anims – Half meg.
A19 Fleet Manoeuvres – Brilliant
A20 Dry Dock – Again excellent
A23/24/25/26/27 Steves Anims – Cute and weird
A31 Space Ace – Game demo, good
A34 Indiana Jones – Famous sword scene
A40 Clothes Peg – O.K.
A43 Agatron 2 – F15 – Good
A49 Fractal Flight – Excellent
A58 Walking Legs – Breathtaking
A61 Agatron 15 – My favourite
A63 Juggler II – Extremely funny
A76 Agatron 30 – Millenium falcon
A78 Agatron 24 – Kuli anim
A79 Agatron 33 – Probe (Brill)

SLIDES

P03 Real 3D – Interesting demo
P05 Daz Dicishow – Excellent stuff
P06 Forgotten Realms – My favourite
P09 Sunslide II – Over 1.5 megs here
P11 NASA 1 – Space shuttle
P12 NASA II – Similar mit music
P21 Joe's II – Brill (Not 1.3)
P23 Adams Family – All American family
P25 Roger Dean – Absolutely superb
P28 Sunslide III – and more
P32 Agatron 6 – T.R. stills
P33 Agatron 8 – and more
P40 Max's Art – Very nice
P41 Nemesis – Done with comic setter
P48 Psygnosis Slides – Breathtaking
P54 Sunconnection – The original
P56 Nagel Pics – Plus utilities
P58 Fantasy Pics – More Vallejo
P64 Total Recall – Good
P65 Agatron 12 – Incredible
P66 Flaxion Future Visions – Brilliant
P67 Agatron 11 – Extremely good

MUSIC

M09 Flash Music – Along a disco vein
M10 Jean Michel Jarre – Nice
M14 Brunos Music II – Very nice disk
M16 Audio X – By Crusaders. Brill.
M18 Amicadeus – Superb by Mr. Baxter
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M20 Classix 2 – Canon & Gigue
M27 Crusader Bacterium – Exceptional
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M115 Music Utilities – By Scoopex
M145 Midi Programs – All sorts
M165 Med v3.0 – Updated version
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G16 The Jar – Good but difficult
G17 Yelp – Very good
G19 Return to Earth – Commercial quality
G22 Tennis – 1 meg sorry
G31/32 Star Trek – T.R.'s game. Brill.
G38 Frantic Freddie – Arcade Action
G39 Flashbier – Brilliant arcade job

BUSINESS & SERIOUS

B02 Wordwright – Wordprocessor
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PUBLIC DOMAIN

Our cheap and cheerful PD person Paul Austin points his finger at the plastic press

Journalism is a term that has to be applied loosely on occasion.

This slight dig only really applies to the newsletter side of the business – generally monthly subscriber support disks compiled in-house by anyone who's interested. As a result the usual journalistic standards don't tend to apply.

Now if someone will hold my horse I'll step down and explain these blatantly snotty statements.

The lack of adhesion to journalistic standards doesn't mean that these particular mags are necessary badly written or unpleasant to read, but it does mean they tend to be littered with various references to bodily parts and functions. You might not be too keen on the kids clapping eyes on some of them.

17 bits Update

A fine example of the Viz approach to literature is the regular offering from Seventeen Bit, one of the countries largest PD libraries.

Their *Update* disk mag is more of a newsletter than a true magazine and tends to throw a few demos, hints, tips and gossip about the world of Public domain, plus a healthy amount on the world of the authors and their latest acquisitions, whether it's Cortina, a Lada or a portion of chips.

It must be said that it isn't the most informative offering around but it will certainly raise a smile. For example in the hints and tips section you'll find such classics as a tip about chips, not as you might expect a guide to upgrades but rather the solution to the pressing problem of portion control with the vegetable variety.

Newsflash

In defence of Seventeen Bit they do have an alternative publication under the banner of Newsflash. This is a very different bag of chips aimed at a much more serious side of the Amiga market. It has a far more professional approach and tends to deal more in utilities than scrolly demos. The editorial reflects the general theme of user rather than watcher, so if you're that way inclined give it a look. Both mags are available from Seventeen Bit on 0924 366982.



Jumpdisk

Jumpdisk is the old man of the floppy press, being the first publication to cast off the chains of paper and printer and swap to the delights of the disk.

The 58th issue is due to hit the streets at any moment, easily making it the grand old man on the Amiga. The disk is an American publication which boasts the biggest distribution in the states.

With such an enviable pedigree, not to mention circulation, it's obvious that the product isn't going to be duff and of course it isn't. It has a nice selection of utilities and editorial and the occasional special additions with the odd silly bit thrown in for good measure.

As well as the mag itself there's a supplemental disk full of material offered with each issue. Each copy comes in it's own little bag with a simple instruction sheet detailing what's on the disk plus the almost obligatory advanced advertising. It's generally an excellent product that's well worth a closer look.

The Independents from GTS

Through a mixture of fate, confusion and sheer bad luck the PD column and George Thompson Services, one this country's biggest and best libraries, have been passing by each other without even as much as a nod in the recent past.

Fortunately this month the run of bad luck has come to an end and as a result I'll be featuring some of the excellent offerings from one of the longest established libraries in the business.

One of the strongest aspects of their business is the exclusive rights to release two of the best plastic mags in the business, both of which are independent offerings from the opposite sides of the world.

Megadisc

This is the second mag in the GTS stable and in my humble opinion quite simply the best plastic mag in the business. The software is excellent and the editorial is easily on a par. The disk like many things in the British media is an Antipodean import that's more of a blockbuster as opposed to soap opera we're all too familiar with.

The Australian influence on the Amiga world has been rather limited to date but if this is a typical example of what's on offer there could be some serious pommie bashing in the near future.

The real strength of the disk lies within its structure which leans much more in the direction of a true magazine than many of its rivals. Most disk mags find it very difficult to walk the fine line between being a magazine and becoming yet another PD compilation disk. Megadisc does exactly that by striking just the right mix between the two.

A particularly pleasant feature is a section devoted entirely to hardware applications and how to tweak and solder your way to a perfect system.

The editorial section is full of inter-

esting reviews and information on all manner of popular Amiga applications. As you can tell I'm impressed and you're sure to be the same.

For further details on both mags get in touch with George Thompson Services on 077 082 212 or Fax 077 082 212.

PD for the little people

OK, that's enough back slapping, it's time to mount up and get back to get back to my moral crusade from earlier in the column. If you've got kids you'll be well used to the *"can I have a go, please let me try, you said I could"* syndrome. This is a common complaint that most computerised parents suffer every time they turn on the machine.

Even the toughest parental tyrant cracks eventually and will hand over the apple off their eye to the frantically keen kid. If you're a PD parent this can be a risky business. Some of the software available is definitely not suitable for the smaller kids in the family.

As a result an alternative collection is required and that's exactly what the Chaps at **A Bit on The Side** have come up with.

The Junior PD Club

If you're looking for material and you want to be sure it's clean, The Junior PD Club could be the answer.

The title may give slightly the wrong impression about the contents. The material is suitable for kids but not necessary aimed at them.

The club guarantees the material to be clean rather than condescending. A fine example of this is a classic sample disk containing immortals like *Popeye meets the Beach boys.*

To be honest the collection isn't that original as far as contents are concerned, with most of the material being available from almost anywhere.

The real advantage comes with the sure and certain knowledge that the fruit of your loins isn't going to be subjected to scrolly demos that give graphic instructions on where exactly other coding teams should put their latest release.

No bare breasts, no sexy stereotypes, or at least not that many, and every new member gets a badge and a Biro to pose with in the playground. If you're interested you can contact **A Bit on The Side** on 0302 887332.



Incredible! Eight tracks for MED

The amazing Teijo Kinnunen does the impossible yet again and comes up with the next great step for the monster he's created.

OctaMED has arrived and somehow he's managed to make it fully compatible with its predecessors. The new version will happily take on either eight or four track characteristics on demand.

The new version isn't PD but considering the great things Teijo has done for the domain in the past it's only fair to give the guy a well deserved plug for his first commercial offering. It's available for the pathetically small sum of £10 within Europe and £15 worldwide and this includes post and packaging.

The new version has all of the abilities of our recent coverdisk giveaway plus the extra four tracks and a new and improved bug free Med player. As I mentioned earlier Med has become a real monster and as a result the new version has a hard time squeezing into the straight jacket of 512k.

As a result Teijo has added a low res option to which it will be automatically defaulted when it's run on a half meg machine.

Amiganuts United hold all distribution rights for OctaMED and as a result Ray Burt Frost, one on the Amiga's finest nutters, has thrown down the gauntlet to the coding community and is offering a full licenceware agreement to the first person to create a conversion program which will transfer tunes from the four to the eight track format.

If you're an AMOS expert there could be a separate licenceware goldmine waiting for the first person to provide an AMOS compatible MED player. To add the final icing to the cake of OctaMED a manual will soon be available to make life a little easier for owners of the eight track version of Teijo's masterpiece.

OctaMED is available exclusively from Amiganuts United. For further details contact Ray Burt Frost on 0703 785680.



Uncle AMOS

An alternative for the PD parent could be the offerings of the Amos library. The AMOS library doesn't claim to be squeaky clean but anyone who's used any AMOS material will be familiar with its very smooth and friendly front end which makes it ideal for children.

This particular talent has already been spotted by most Amos authors and as a result there's a huge range of material aimed specifically at the kids.

There is a small price to be paid for the smooth and stylish Amos approach to PD and that's its tendency to only offer one program on a disk, so compared to other compilation disks it can work out a little expensive.

Most of the larger libraries carry an ever growing supply of AMOS. The very best material tends to be licenceware available through **PCS International** on 0942 521 577 or alternatively from Amiganuts United on 0703 785680



Classy compilations

While I'm still holding the shovel I might as well heap a little more praise on the already overburdened GTS.

As well as the series of mags supplied GTS also sent an excellent collection of compilation packs varying from utilities to games.

Besides the quality of the compilations perhaps the most pleasing aspect of the packages is the packaging. Most experienced PD fans are no doubt wondering: "What packaging does he mean - the envelope?"

I know it's hard to believe, but this stuff actually arrives nicely packaged in a plastic bag with a smart little card which documents the entire contents of the disks.

My pet hate with PD is the infuriating habit which almost all the libraries have of supplying their wares with absolutely no way of identifying one disk from the next,



apart of course from loading them up.

To the novice collector this particular inconvenience is hardly noticed but if you've got a few hundred disks all from the same supplier it can be a nightmare to find exactly what you're after.

I know what you're thinking: why don't you scribble on the disk label? Well, firstly, it looks a mess and, secondly, most labels are already covered with logos and phone numbers leaving little or no room for anything else.

A nice convenient card wouldn't cost the earth but would save a hell of a lot of wasted time. This alone was enough to make GTS an instant contender for the column.

The packs have more of a theme rather than just being a collection of like minded material.

For example the printer workshop collection doesn't just give the usual collection of standard printer drivers but rather offers all manner of really useful printing-related utilities which combine to provide a solution to almost any printing predicament.

FIRST TIME BUYERS

If you've just read this month's cover feature you might well be strolling through the PD section for the first time. Usually this column is chock-a-block with reviews of the latest releases, but as a result of making PD our main feature this month's column has been designed to complement some of the issues the feature will no doubt raised.

One of these issues is the plight of the new convert to the ranks of the Public Domain. If you're a beginner the huge range of PD to choose from can be almost off putting.

The first thing to do is contact a likely looking library and ask for their catalogue. This usually comes in the form of a disk but on occasion you might be lucky enough to get one in book format.

These catalogues are rarely over a pound a time, and on occasion you even find a few programs thrown in to wet your appetite. It's always worth searching through a few catalogues before you buy to avoid the almost inevitable duplication of certain elements of your collection.

If you're particularly keen on a specific area of the Amiga's talents, Softville PD Services are one of the best in the business when it comes to dedicated collections. If for example you're into graphic applications they can supply clip art sets with as many as seven disks in each set all at a very reasonable price.

If there's a need, Softville usually have a collection to support it. Their disks aren't quite as cheap as some of the opposition but that's the price you pay for dealing with pros.

All their collections can be found by strolling through their regularly updated book style catalogue. Contact Softville PD Services on 0705 266509.

Well that's it for another month. Next month I'll be back to the usual rundown of the best in the business, so watch this space...



Variations on a theme

Stevie Kennedy finds out CLI can be environment-friendly

As last month's focus on script files demonstrated, AmigaDOS is a surprisingly flexible tool when used as a crude programming language. The Auto-Script file on May's coverdisk was an attempt to show users a little of the system's potential to cut out a lot of routine drudgery, but it was left intentionally deficient in its use of variables.

This month's column should give users a basic appreciation of how to use variables in their own AmigaDOS scripts, and will show how even a simple application such as Auto-Script can in this way be given a new lease of life.

With AmigaDOS, we can separate variables into two groups – parameters and environment variables. A parameter is a value which is passed to a script file by the user when he or she EXECUTEs it, and is nowhere near as flexible as a true variable.

Environment variables, on the other hand, are a bit more complex, much more flexible, and will be introduced in the second half of this tutorial.

Let's look again at Auto-Script. It is a script file which formats a disk in your extra drive, creates the essential directories, then copies the relevant system files across to make a system disk which will auto-boot.

For the sake of simplicity, the script assumes that the second drive is called df1: which is the case for the vast majority of A500 and A1500 users. There are many A2000 owners, however, whose external drives are labelled df2: because on these machines only internally mounted extra drives can be called df1:. Such users would have found Auto-Script useless in its original form.

```
ECHO "I'm going to be really boring"
ECHO "and just do a directory listing"
ECHO "Try to contain your excitement"
ECHO " "
ECHO "Ready?"
DIR DFO:
```

Example 1

```
.key var1
IF <var1> EQ ""
ECHO "No drive specified"
SKIP end
ENDIF
DIR <>
LAB end
```

Example 2

Parameter Paradise

With the use of a simple parameter, this sort of problem could be avoided with ease. Take a look at Example1, a script which carries out a directory listing of df1:. As it stands, it is a pointless script because it does nothing you couldn't do quicker and easier from CLI. Now take a look at Example2.

Although this is still less than useful, it shows how a script can be changed quickly and easily to accept parameters. To run Example1, you would type

```
EXECUTE EXAMPLE1 <RETURN>
```

but to run Example2, this would become

```
EXECUTE EXAMPLE2 <drive> <RETURN>
```

where <drive> is the parameter looked for by the script. The script knows it should expect to be passed a parameter because the first line defines a "key".

The key should always be the first line in a script and should always start with a period (or dot) and the word 'key' followed by the parameters. If there is more than one parameter, a comma is used to separate them.

Example2 knows, therefore, that it



PART 3

must expect one parameter, and it will attempt to carry out a directory listing in accordance with the string it receives. If you type EXECUTE EXAMPLE2 DF0: the script will accept the string 'df0:' as its parameter and act accordingly.

If you don't pass a parameter, the IF test will detect that var1 is the empty string "" and print 'No drive specified', then SKIP to the end.

You will have noticed that AmigaDOS places variables in angled brackets when they are being operated upon.

This is necessary simply to distinguish them as variables and has no other technical significance. Try not to confuse them with the angled brackets we put around the word RETURN and others in examples of CLI commands.

Value of variables

If we turn our attention back to Auto-Script, it should be easy to see where improvements can be made. Instead of all those lines which refer specifically to df1:, such as COPY #? to DF1:c, we ought to have lines which refer to the parameter <var1>.

These lines would look something like COPY #? to <var1>c. When A2000 users with external second drives want to use the script, they would then type

```
EXECUTE AUTO-SCRIPT DF2:
```

and Auto-Script would know which drive was to be used as the target drive.

As long as you are using Workbench 1.3 or higher (and if you aren't I'd advise you to upgrade immediately) you can also test variables and parameters using the VAL condition to the IF test. In Example2, the IF tests <var1> to see if it is a blank string, but it would be just as easy to test its numerical value.

```
.key var1
IF VAL <var1> EQ 0
DIR DF0:
SKIP end
ENDIF
IF VAL <> EQ 1
DIR DF1:
SKIP end
ENDIF
IF VAL <var1> EQ 2
DIR DF2:
SKIP end
ENDIF
Echo "None s
```

Example 3

Let's say we wanted to be lazy when running the script, and instead of typing df1: we wanted to type just the number 1. The result would be something like Example3, and you would type

```
EXECUTE AUTO-SCRIPT 2
```

to carry out a DIR of df2:.

Defaults

Although, as we have seen, the default value of a parameter is an empty string if nothing is passed to it by the EXECUTE command, it is also possible to set a default value from within a script. This is achieved by a line of the syntax

```
.DEF <variable> "default string"
```

and sets the default for that variable or parameter for all succeeding operations. In Example2, for instance, we could define the default for var1 as "No drive specified" and fix things so that this is printed when no parameters are specified.

Alternatively, you can use a dollar sign ($) each time you use a variable in order to specify the default value it should take at different points in a script. The line

```
ECHO "<var1 $ I like variables>"
```

tells AmigaDOS that you would like the string "I like variables" printed if the script has not been passed a value for var1. All text inside the angle brackets to the right of the dollar sign is treated as the default.

Options

As a final note on parameters, you should be aware that they can be either optional or compulsory depending on your needs. To make a parameter essential, you must add '/a' to it in the key line at the beginning of the script, so it would read .key var1/a.

If a value is not passed to a compulsory parameter, the script will grind to a halt with an error message. This feature would be of most use if, for example, it would cause a problem when the parameter was given a nill value. FORMAT DRIVE DF<var1>: would cause a bit of concern to most people if it took a default value of zero and formatted their system disk!

Optional parameters, to which AmigaDOS defaults, are defined by the adition of '/k' on the key line, and can be passed values in the normal way.

SETENV and GETENV

Environment variables are the true AmigaDOS system variables, and since the release of Workbench 1.3, Amiga users have had an increasing amount of control over them.

The two commands I'm going to look at in this brief overview of environment variables are SETENV and GETENV.

SETENV is used to create a variable and/or alter its definition. It takes the syntax

```
SETENV <variable> <string>
```

where the string defines the variable.

GETENV is used to retrieve the variable's value or string and uses the syntax

```
GETENV <variable>
```

It will print the variable's contents to whichever device the user specifies with a redirection (>) character, although it defaults to the current CLI window. If, therefore, you wanted to keep a running tally of an important variable in a program, you could quite easily use the line

```
GETENV >PRT: <variable>
```

at various points in the listing to redirect output to the printer.

When you define an environment variable, AmigaDOS looks for a logical device called ENV: which is usually set up in your Workbench's startup-sequence using the ASSIGN statement

```
ASSIGN ENV: RAM:
```

to store all information concerning the variable in the RAM disk. Always either make sure you have this line in your startup or type it in before messing about with variables.

Environment variables are the big brothers of the ASSIGN statements and bring a new flexibility to AmigaDOS.

It's all very well being able to ASSIGN logical device names as long and complex pathnames, but when you can use environment variables for absolutely any string of text, your script files are in danger of becoming true programs.

We don't have enough space to go further into environment variables in this column, but if there's enough interest in the subject, we'll cover them in more depth at a later date. For the moment, we've received many more letters requesting information on more down to earth areas of AmigaDOS, so we'll be looking at them first.

Next Month

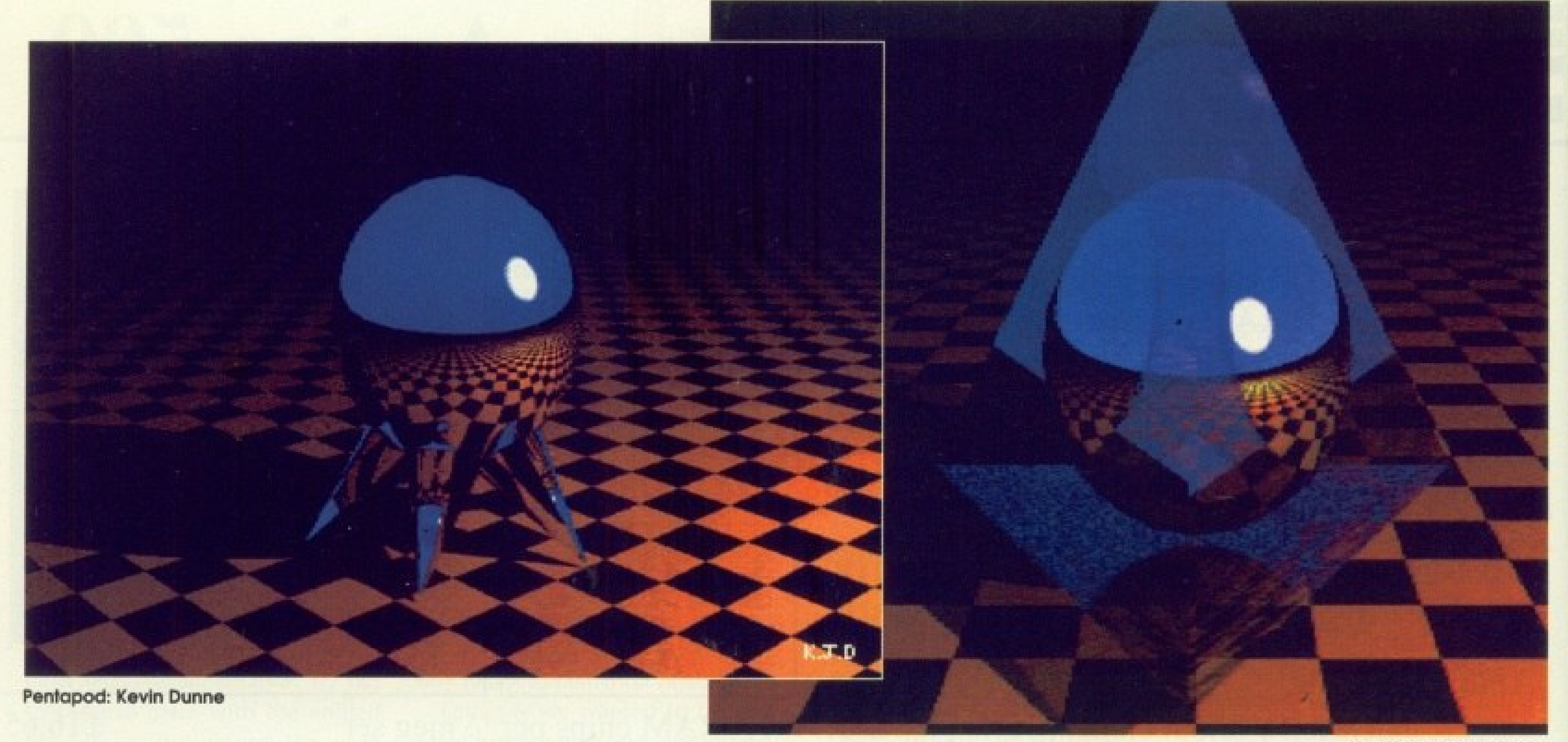
The difference between Shell and CLI, and how to get the most out of the extra features offered by SHELL

Variables: Three Golden Rules

1 Remember the 'key' at the start of every script file which is to have parameters passed to it. It must begin with '.key' and contain as many entries as there are parameters.

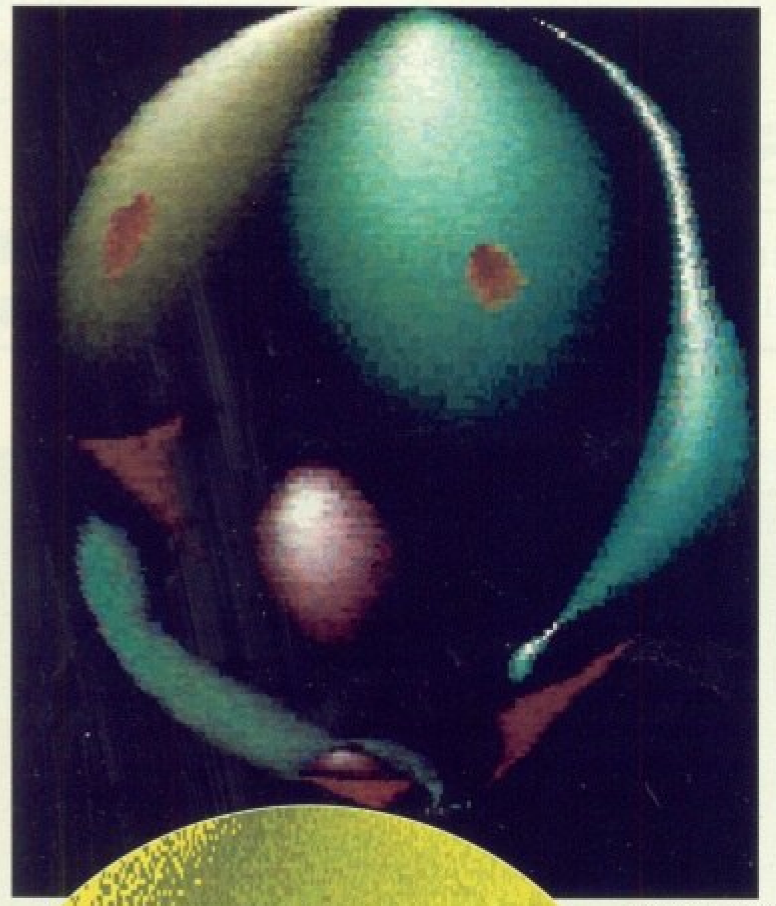
2 Remember a variable can be optional (e.g 'var1/k) or compulsory (e.g var1/a). You may need to make a variable compulsory so that drastic things don't happen when the default value is taken.

3 Always include the line ASSIGN ENV: RAM: in your startup-sequence if you intend using environment variables.



Pentapod: Kevin Dunne

New look: Kevin Dunne



the Gallery

From the real to the surreal, the Gallery continues to attract the best from the rest in the world of computer art. Once again the Amiga's domination of this field is confirmed, whether it be ray tracing, enhancing digital images, or the combination of hand and eye, it can't be beat. This month's collection shows excellent examples of all the aforementioned abilities. Keep them coming in!

Clown2: Rod Summers



Globe: Rod Summers



Stranded: Franklin

Transformed: Franklin

Porche convertible,
Porche Avalanche and
Amiga stamp pad: Steaven Heppener

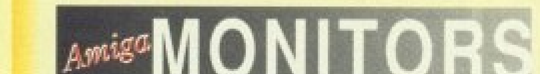
NEW!

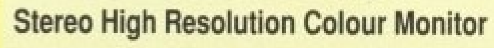
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panel on Page 3)

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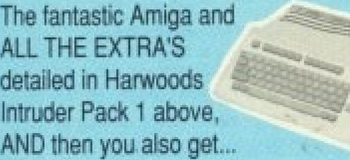
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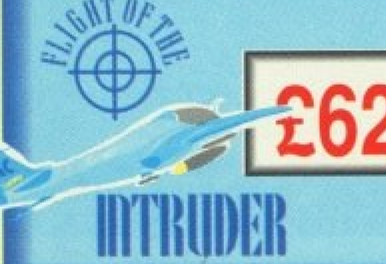
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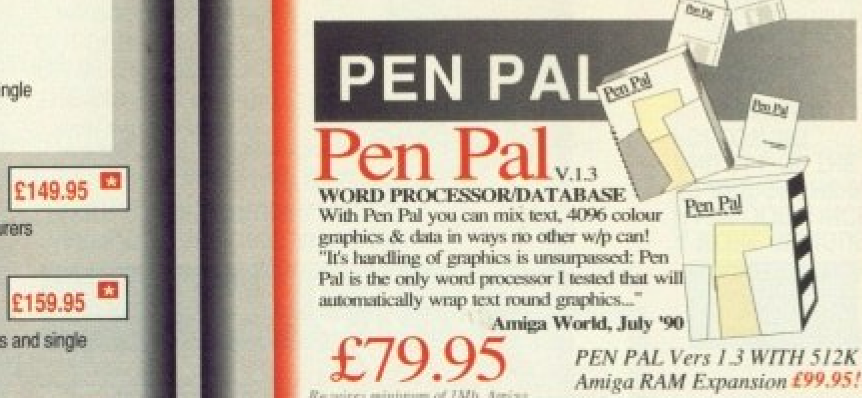
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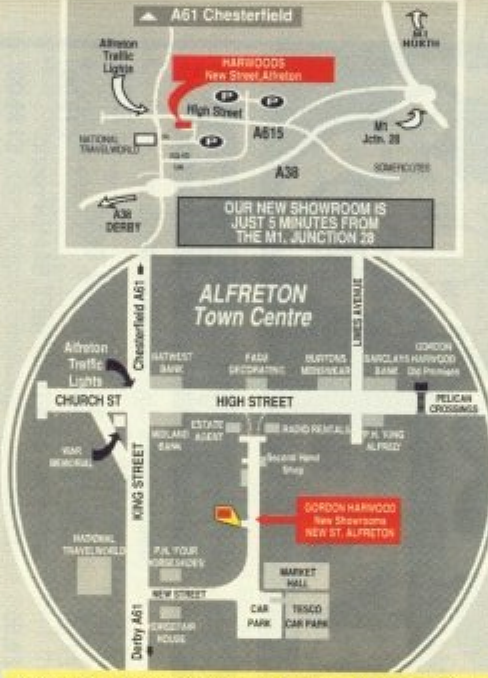
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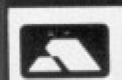
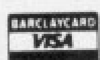
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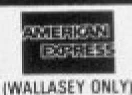
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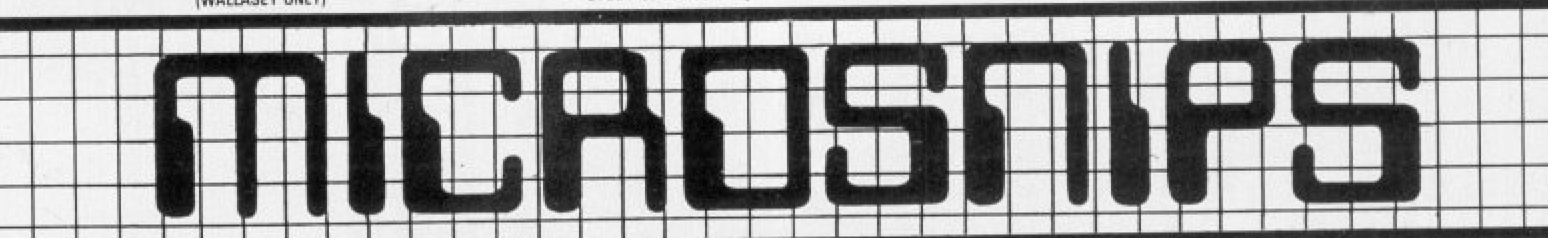



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MED III the s-s-s-sample ed-ed-editor

Paul Austin takes a closer look at the latest addition to Teijo Kinnunen's incredible music utility MED!

It's fair to say MED isn't the friendliest looking utility on the market. However, it's nowhere near as complex as it first looks, and in fact it's more of a musical dream than a technological nightmare.

The massive range of abilities have always put it on a par with anything in the commercial sector but the latest additions to its repotoire make MED by far the best all round music utility in the business, regardless of price.

99.99999 per cent of you already have a copy of MED III thanks to its inclusion on the *Amiga Computing* May coverdisk. If you were abducted by aliens or were hiking in the Himalayas you might have missed it. If indeed you did, you could always order a copy of the December issue of *Amiga Computing,* when it featured on our cover disk. *(See order form on Page 124).*

This was follwed in our January and February issues with a series describing how to get the best from MED. So check your back issues for hints and tips for the soundtracker section of the program which is still the same.

This month I'll be concentrating on how to get the best from the all-new sample editor.

Exciting

The editor is by far the most exciting addition and it not only gives you the ability to manipulate samples you already have but you can also sample your own sounds. Using first generation samples is by far the best approach. Avoiding repetition in the music and the sounds is the key to a classic.

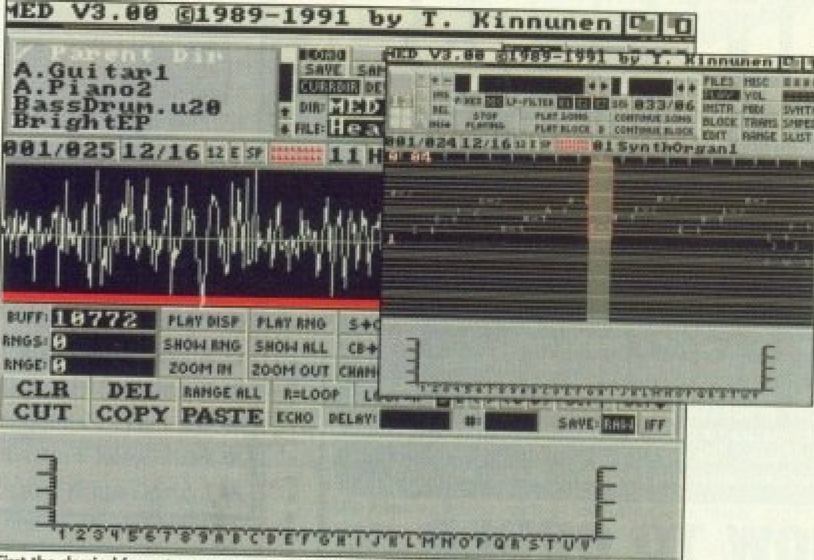
It's not essential that you go mad and spend a fortune on a sampler, just go for something cheap and cheerful. The key to using cheaper samplers is to really apply some power to the input signal.

The best way is to take your output from a headphone socket and then adjust the volume control on the amp until the signal is just below the distortion or clipping point. With MED you can monitor the input signal and adjust it until the waveform fits perfectly before you sample the sound.

All Amiga samplers are 8 bit units, and as a result even the best are far from perfect, so don't worry about Hi-Fi quality but rather originality.

Most samples tend to be ripped off from CDs, tapes and so on.

Again this isn't the most original method but it's a lot better than using sounds which have been kicking around the Amiga scene for months. A useful asset of the MED editor is its ability to add and delete space within a sample.



First the classical format many a muso will be familiar with. In the background the shape of things to come!

High levels of hiss between sounds often ruin an otherwise excellent sample. Minimising this hiss is what makes samplers like the Audio Engineer so impressive, not to mention expensive.

Even so with a little patience it's possible to make even the cheapest sampler sound a good deal more expensive. First copy your sample to the copybuffer or preferably a floppy. This is always a good idea if you're about to do any form of editing.

Next, mark out a range between two sounds within the sample, but make sure you leave some space between the range and the sounds on either side of it. This space will become important later.

Now click on the CLR gadget. A blank space should appear to replace the hissing silence of the original. Repeat this process right through the sample.

OK, now play the sample. It's probably better than the original but the hiss has now been replaced by annoying clicks when each new section of the sample plays. The next job is to smooth the transition between the total silence of the new sections and the sounds themselves.

Volume change

To do this we'll use a gradual volume change to fade the background noise up and down before and after each sound. Click in the first window after the VOL CHANGE gadget and type 1, press return and type 99. Now click on the ZOOM IN gadget and scroll up to the beginning of the first sound using the cursor keys.

This is where the noise left at the beginning and end of the separate sounds come in useful. First mark a range that includes this section, with at least the same amount prior to it.

Now click on the CHANGE VOL gadget. You should see the difference between the original and the blank insert decrease. If you repeatedly click on CHANGE VOL the difference between the two will become increasingly subtle.

Repeat this process at the beginning of each sound in the sample. When you've done them all simply reverse the numbers in the CHANGE VOL windows and follow exactly the same procedure at the end of each sound.

Now compare the original and the processed version and the results should speak for themselves.

Teijo Kinnunen, the author of MED, obviously took a long hard look at Audio Master when designing the sample editor. As a result it's very similar in many respects, boasting most of its features for a fraction of the price.

To be fair the samples produced with MED aren't as good as Audio Master and it is trickier to use, but considering the editor is only part of the MED package it's quite simply amazing. If you do become addicted please send some cash to Teijo – he deserves it...

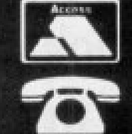
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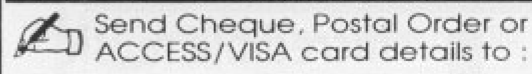
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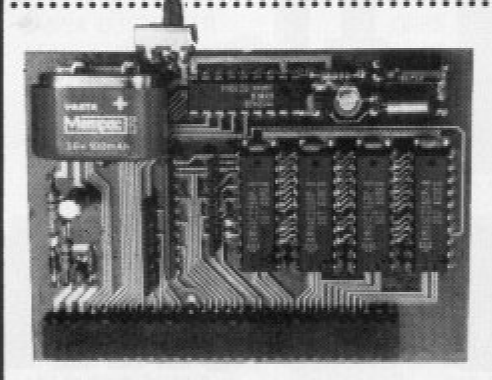
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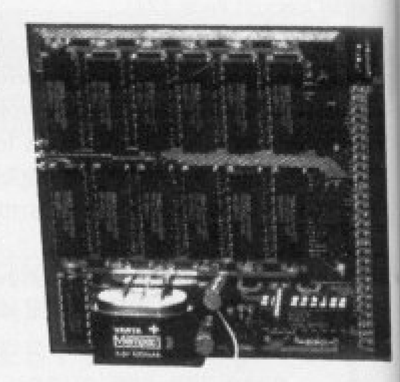
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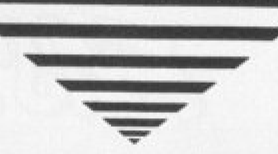
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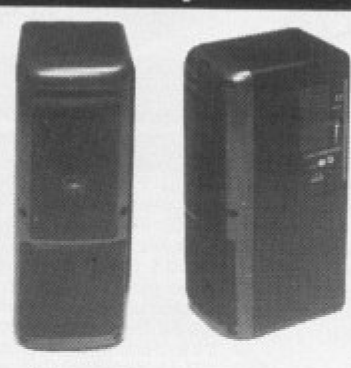
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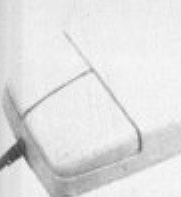
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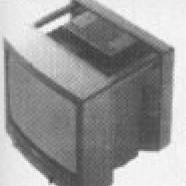
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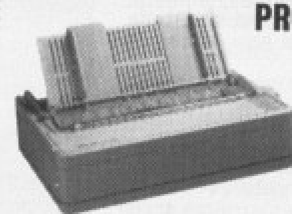
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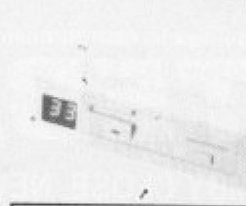
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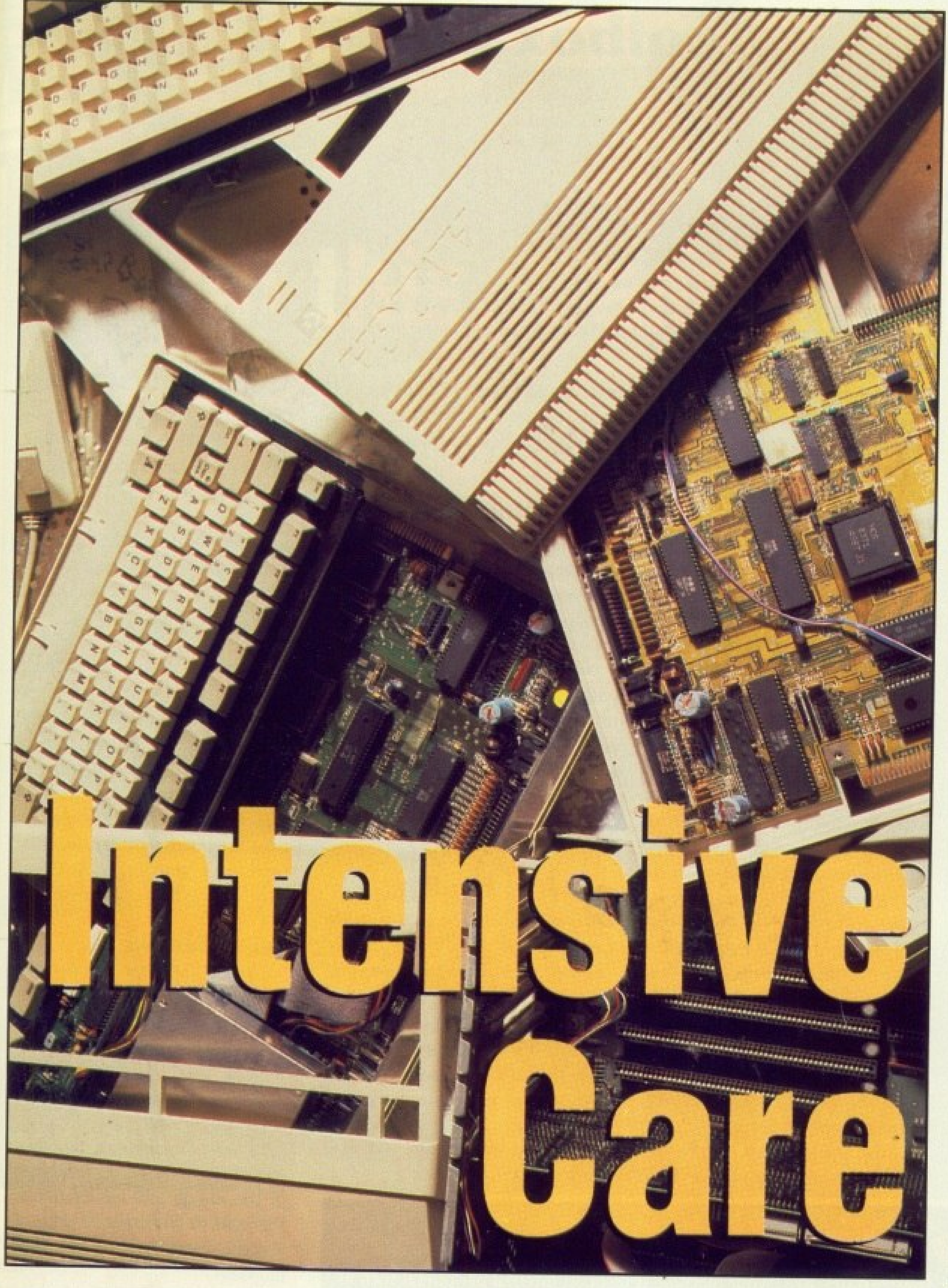
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Intensive Care

What should you do if your Amiga's heart stops beating? Paul T Whiteley takes his bedside manner to a sick machine

THE Amiga is a well specified idiosyncratic machine. Commodore bought it from a team of designers who wanted to set a standard instead of following an existing one. The Amiga shares its 68000 series main processor with the Apple Macintosh, Atari ST, the Sinclair QL and One per Desk machines.

The main processor chip is where similarities end. At this point you enter a different plane. The hardware on the Amiga allows 4096 colours, stereo sound, sampling, MIDI, and a whole host of features brought by the foresight of a dedicated chip set and open architecture.

The 1000 was the first Amiga, but the majority of machines in the UK are 500s. Together with a sprinkling of 2000s, a few 1500s and 3000s and not forgetting some interesting hybrids like the Checkmate 1500 and the Bodega Bay.

With such a highly specified and complicated machine you could be forgiven for thinking that there's nothing user friendly inside. Take care however and you could learn a lot about the Amiga ...and maybe even save yourself some money.

Guaranteed to annoy

Like all computers and electronic products, your Amiga comes with a stern warning. "Open me up and kiss your warranty bye bye."

If all you want to do is play games, (which is no bad thing to do) then leaving your Amiga intact probably won't be any great loss.

But if you want to repair or troubleshoot inside the machine, you'll have to forget the warranty or wait until it's run out.

If the machine is in warranty and it's ceased to proceed, it's probably the responsibility of Commodore or, more likely, your friendly computer dealer to make it work again. If you are completely silly and are devoid of a functioning brain cell you'll still rip your Amiga open anyway. However if you have problems with a relatively new machine, get it fixed by the people responsible!

Preventive medicine

No matter what you do to protect your Amiga from the rigours of human foibles there will come the day when a clumsy labrador chews the cables or it meets some other catastrophe that results in loss of function either partial or total.

Although the Amiga is a tough cookie, it will only take so much. And while we are talking about repairs and problems surely it makes more sense to treat your computer with care and respect.

Do not spill anything near it, or on it. Remember when you attach a peripheral of any kind to the machine, secure all fastenings. If you don't you could be gazing at an invoice.

Those little thumbscrew things on the printer cable are not only for decoration. They secure the cable to the socket, thus making it more difficult for a snagged cable to damage the socket.

The same rule applies for every cable or connecter. Peripherals which attach to the multiway connector on the side can be a danger so if possible secure them in such a way that they cannot move in relation to the work surface.

A simple tip is to place a sheet of

wood or similar laid flat on the work surface. Mark out the position that your machine covers including all cables and peripherals and attach batons to the sheet. This will prevent the machine and its peripherals moving around in relation to each other.

Another way of avoiding costly repair bills is to make sure that all cables are secured in such a way that they cannot be snagged.

Make mine a short

One of the commonest problems with the Amiga or for that matter any home computer is live or dead short circuits caused by strain on cables.

A dead short is the least harmful but sometimes the most difficult to track. This is caused when a cable, wire or track on a printed circuit board is broken by a sharp tug or strain.

Normally, the net result is a malfunctioning computer that can be repaired by re-soldering or tracking. The live short is more dangerous. This is caused in the same way but instead of a line, wire or cable breaking, two or more touch together. Because the circuit remains live, this can damage other components.

The knock on effect of a live short is that several components may be unserviceable. In a bad case a live short can cause sparking and burning. If this happens, insulate yourself, and remove the plug from the wall.

By depriving your machine of its power you have assured that the damage cannot continue to get worse.

If your problem is within a monitor and you intend to open it up and attempt diagnosis or repair, remember that a monitor can carry a lot of 'stored' power and even when not plugged in can give you a shock big enough to stop your heart. If in doubt, leave well alone and call a professional.

Bits and pieces

If your job requires replacement of a component or an integrated circuit (chip), a few simple rules will make the job pass without problem. Work with plenty of light so that you can see what you're doing.

Always keep plenty of open containers around for screws and other bitties to avoid them ending up on the floor. Get any documentation or other paperwork into a place where you can easily refer to it.

Prepare and label the components ready for replacement. This may sound a little silly but if you've two identical processors on the table how do you know which is faulty by looking?

Do the job one step at a time, take notes and label everything that you have saying what it is and where it came from. If it's possible to fit it in more than one way as in the case of an IC, describe its position. An IC won't work if it's in backwards.

Gone to war

Work with the premise that you may be dragged away for a few months.

When you get back you should be able to refer to your notes and continue as if you hadn't left.

If there are any bits left when you've finished (and there will be) find out where they're from and replace them. Manufacturers worry too much about money for any of those spare screws not to have a use. They do matter and should be replaced.

And finally...

Being able to work on your machine can be a useful skill and one to develop. Know your limitations and only take on jobs that you can either finish or ask a friend to supervise you through. If you open up your Amiga while there's still warranty, it will be invalidated. If you start a job and it gets too much, bring in a professional. Better to look a right prat than wreck a good computer...

Toolbox

If you want to do your own repairs and fault finding you'll need these tools.

- Pliers
- Screwdrivers
- I/C inserter-extractor tool
- Multimeter
- Soldering iron
- solder
- Assortment of pieces of wire, sockets etc
- Rolls of insulating tape
- Solder pump or desoldering braid
- Multicore cable
- Wire cutters/snippers
- Bottle of Tequila
- Salt
- Lemon
- Anadin
- Alka Seltzer

If you think that repairs are as important as your Amiga and want the ultimate posing tool for a technical anorak, you could spend £400 on an oscilloscope confident that no one else would know how to use it either.

Not Too Difficult

If you're determined to try a few repairs or upgrades, don't take on a job that's beyond you. Most importantly, start with simple tasks that can be checked before you blow up your Amiga.

Leads are an ideal initial repair job. You can fabricate or repair a monitor lead and test it without plugging it in. The important thing with a lead is to check continuity and be sure that there are no live shorts. This can be done (but it's a fiddle) with a battery and flashlight bulb, a couple of wires and a pair of probes made from a steel needle and a mini crocodile clip.

Each line on the lead can be checked and cross checked to be sure of the signal integrity. Another useful way to learn your way around the inside of your machine is to fit an internal peripheral such as the Power Computing internal A500 hard drive, a large internal RAM expansion or the Vortex AT Once board.

The AT Once is a good example as it comes with instructions that offer a step by step guide through the fitting of the boards illustrated with photographs.

The process involves opening the machine, removing keyboard and cover and removing the central processor and the gate array (GARY) from the board. There isn't any soldering so it's a job that requires manual dexterity and a little thought but no potentially destructive processes. In the meantime happy hunting.

Safety first

Although your Amiga uses low voltages don't work with the power on. A live short that you don't know about could kill you. A read through the coroners reports of any town will confirm that lots of dead people knew better.

Get a professional

There's no substitute for knowledge. Although you may think that you can tackle the occasional job on your machine, it's good to know that there are services available that can do the work quickly and efficiently.

FMG

These are the people Commodore trust with servicing all Amiga's sold in the UK. If your machine goes "pop" during the warranty period it will end up at their workshop. It is worth remembering that their expertise is available at a reasonable cost after your warranty expires. Commodore trust them, so you can too.

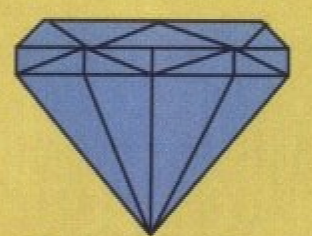
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Supplier of parts and components for the Amiga. The firm will undertake most jobs and offer help and advice if you're going to attempt it yourself.

Ladbroke:
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Tandy:
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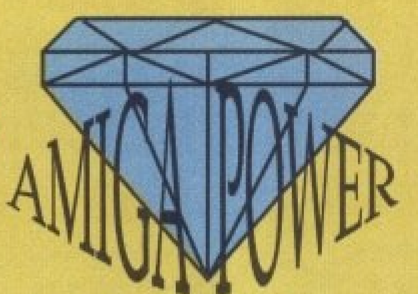
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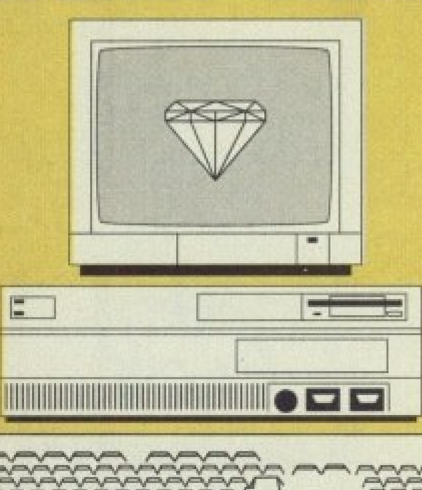




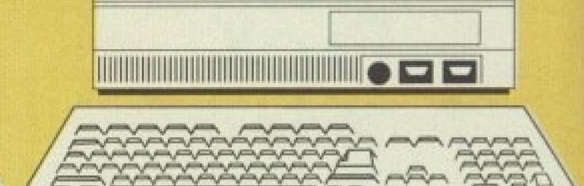
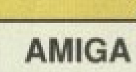




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Expand and deliver

Jason Holborn uses his peripheral vision to conclude Amiga Computing's expansion guide

When the time comes to add extra beef to your Amiga, there are some fairly obvious areas that deserve attention. Most people soon realise that an extra half meg of memory and an external floppy drive would be nice. The next stage is normally to add a better mouse or a monitor.

So what next? In this concluding part of "Expand and Deliver" we set our sights a little further afield and investigate networking modems, genlocks, emulators and all those other bits of kit that people seem to buy, and then find a use for...

Data sharing

Do you feel lonely when you use your Amiga? If so, then a modem could be the answer to your dreams. Made famous by such scare-mongering movies as 'War Games', the modem will let you communicate with other computer users by linking your machine to the standard telephone network.

Using a modem costs money, so it's worth investing in the fastest modem you can afford, although you must also be aware that many on-line systems cannot cope with certain speeds. Some on-line systems support 4800 baud modems, but the vast majority won't support anything faster than a 2400 baud modem.

The price of modems has dropped considerably in the last two years or so, so getting on-line is not quite as expensive as you might believe. Typically, a fairly well endowed 2400 baud modem can be picked up for around £180.

Closer to home, it's also possible to connect together several Amigas in a network, therefore allowing them to share programs and peripherals (hard drives, printers etc). In a professional environment, networking can cut the cost of upgrading several Amigas by a considerable amount – instead of having to buy such things as hard drives for each machine, you can buy one large drive (which usually works out cheaper) and share it between several machines. Several companies now produce network systems, although it's worth checking out all the options available before splashing out. As the old rule stipulates, don't buy the first that you see – you may live to regret it!

Working along the same lines as a modem, you can also set up your Amiga to send and receive facsimile (fax) messages. Currently two such systems exist - Michtron's FastFax and Applied Engineering's DataLink system. Michtron's product is perhaps the better of the two, but it'll set you back £600 (a real fax can be picked up for just £400!).

Video visuals

Video graphics are an all-important aspect of Commodore's marketing strategy, so it comes as no surprise that the video hardware market has been flooded with innovative products ranging from genlocks and flicker fixer cards, to 24-bit frame buffers which offer near broadcast quality displays.

Genlocking is one application that really sets the Amiga apart from its closest rival. For little more than a £100, you can overlay computer graphics onto a composite video source to create titles and special effects for your home movies. I won't go into too much depth about the kind of features you should be looking for - you'll find these within my Desktop Video column elsewhere within this issue.

Moving into the realms of professional video graphics, the last six months have seen an explosion in the number of 24-bit graphics cards available for the Amiga. Most are a bit on the pricey side (£1500+), but several companies in the States have started to market budget 24-bit cards that costs little more than a couple of hundred pounds.

Most promising of all these is the HAM-E 24-bit RGB card from Black Belt Systems. Their card runs on all Amigas and sells for just $300. It offers full compatibility with a range of 24-bit file formats including 24-bit IFF, Targa, GIF, Dynamic HiRes and SHAM formats, plus a load more besides. It comes complete with 24-bit paint and rendering software, making it an exciting proposition for anyone interested in Amiga graphics. Expect a full review soon.

Interlacing may be a real pain on the eyes, but it's just the ticket for video work. However, if you've tired out the old interlace hop, then you can rid your machine of it forever by fitting any one of a number of flicker fixer cards. These ingenious devices convert the Amiga display to a rock steady picture that would put a VGA PC to shame. Unfortunately, you also need to buy an expensive multisync montor, so they're very much restricted to the more affluent Amiga users amongst you.

On the horizon is the most exciting video peripheral yet. Currently only available in NTSC format, NewTek are hard at work on a PAL version of their ground-breaking VideoToaster effects system. It combines a broadcast quality genlock and effects system, with 24-bit graphics capabilities. Don't expect it for a fair old time yet, though.

Hard drivin'

Floppy drives are all well and good, but they have a number of distinct disadvantages. For starters, they are soooo slooow – even relatively small files seem to take an eternity to load. Secondly, even the Amiga's fairly well hung drives just can't handle enough data. They're ok if you're using your Amiga for nothing more than a bit of word processing, but you'll soon start to feel held back once you start messing around with 24-bit graphic and PostScript files.

Of course what you really need is a mass storage device, the most common of which is the hard drive. If you've never used a hard drive-based Amiga, then you simply won't even be able to comprehend what a difference such a device makes to the Amiga. Suddenly everything becomes so much smoother and so much faster. No more do you have to mess around with disk swapping – everything is there on a single high speed storage device.

Hard drives come in a range of different sizes, starting at about 20



Undercover Amigas

Question: When is an Amiga not an Amiga? Answer: when it's a Mac, a PC, a Unix system, a BBC micro, or even an ST....

With little more than an inexpensive piece of hardware and some clever software, you can transform your Amiga into a clone of just about any major computer you can think of. There are emulators for all the major 8-bit micros – the BBC, the C64, the QL (yes, the QL is an 8-bit!) and even the Spectrum 48k!

For the poseurs amongst you, it's even possible to transform your Amiga into a fully functional clone of an Apple Macintosh, therefore allowing your Amiga to take advnateg of the vast range of quality productivity software (well, DTP software, actually) available for Apple's baby.

Things really start to hot up when it comes to emulating a PC compatible – there are now no fewer than four different hardware PC emulators available! For the A500, the best is undoubtedly Bitcon's KCS Power PC Card, although SDL's ATonce is still worth a look just because of its multitasking capabilities.

For those of you with megabucks to spare, then Commodore's new Unix card for the A3000 is well worth checking out. It's a complete Unix system on a card that's based around the latest release of AT&T's multitasking, multiuser operating system. You may not have heard a great deal about it on the home computer scene, but Unix is big business in the corporate market.

Mbytes and moving up to multi-gigabyte in size. Most cheap Amiga hard drives offer 20 Mbytes of storage, but it's worth spending a little more for a higher capacity drive – preferably at least 40 Mbytes. You may think that 20 Mbytes sounds like an awful lot of storage, but you'll be surprised how quickly it'll get filled.

With the imminent launch of Commodore's CDTV system, another storage device worth considering is that of CD-ROM. You can't directly write to a CD-ROM disc (you'll need a £3000+ WORM drive for that!), but they have one very major advantage over hard drives – their sheer size. A single CD-ROM disc can store over 600 Mbytes of data, which is over 30 times that which Commodore's A590 can handle.

Commodore have announced that they will be producing an external CD-ROM drive for existing Amigas later this year, but US-based Xetec have beaten them to it. Xetec's drive is fully CD-TV compatible, so you'll still be able to take advantage of CD-TV software once it is made available.

To keep you going, Xetec actually include a free 'Fish & More' CD-ROM disc which contains the entire Fred Fish collection of PD disks – all 360 of them!

If you're using a hard drive, things can go wrong – read writes errors are a regular occurance, but by far the worst fear of hard drive users is the dreaded head crash which usually results in you losing everything on your drive.

What you need is a backup device. If you're using a high capacity drive, then a good bet is a tape streamer, a sort of glorified tape recorder which backs up an entire hard drive onto dedicated tapes that look not unlike those of the audio variety.

Once again, Xetec also produce a tape streamer which they sell for about $500. These come in two sizes – 60 Mbytes and 150 Mbytes – and are bundled with all the neccessary software to get you started.

If you can't quite afford a hard drive, then a high density floppy drive may just be the thing your looking for. Applied Engineering produce a 3.5in high density drive which can pack a whopping 1.52 Mbytes of data onto a single high density floppy. This can be bought for about £130.

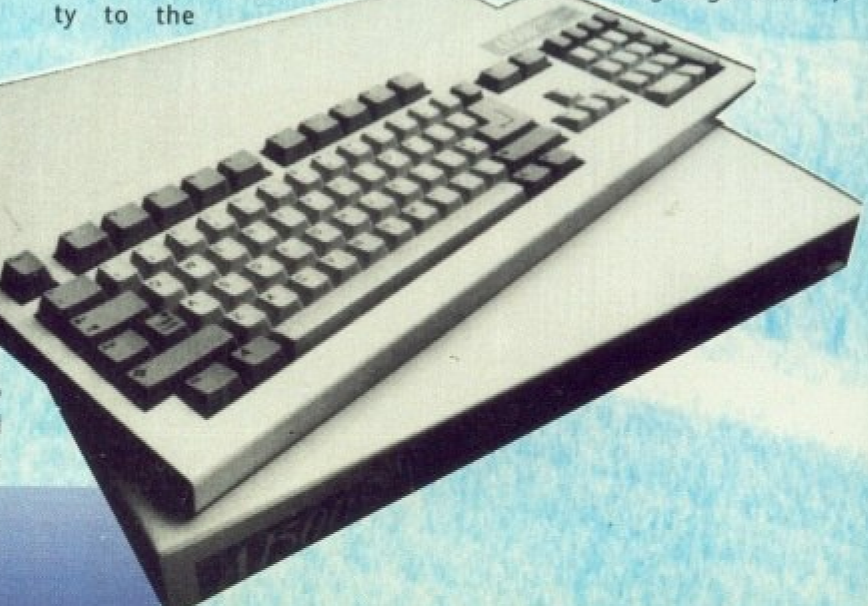
Modes rule OK!

The Amiga 500 is a pretty versatile machine as far as expansion possibilities go, but it's still not as expandable as its big brothers, the A2000 and A3000. However, spotting a gap in the market, several manufacturers have come up with 'expansion modules' which allow the Amiga 500 to use hardware devices designed exclusively for the high end-Amigas.

The first to arrive was the A1500 from London-based Checkmate Digital. For £230, Checkmate's expansion console is a solid replacement casing for the A500 that makes the machine look more like its big brother, the A2000. The keyboard is brought out of the A500 casing to live in its own external steel casing which is attached to the main system unit via a curly cable. It provides space for two drives internally, plus an extra kit is available to allow A500 owners to move the A590 hard drive inside the A1500.

Checkmate are still hard at work on an extra 'OverRider' module which promises to add A2000 expansion slot-compatibility to the A1500. This has been in the pipeline for over a year now, but Checkmate recently revealed that the kit is finally reaching completion.

More promising still is the Bodega Bay modular expansion console from US-based hardware manufacturer, California Access. Unlike the Checkmate unit, the Bodega Bay offers full 2000-card compatibilty as standard, split between four A2000 100-pin slots (for RAM expansions, hard drives etc) plus three overlapping XT/AT-compatible slots. The Bodega bay can handle the acclaimed Bridgeboard PC emulator, plus there's an option to have an A2000 video slot fitted (for such things as genlocks etc).





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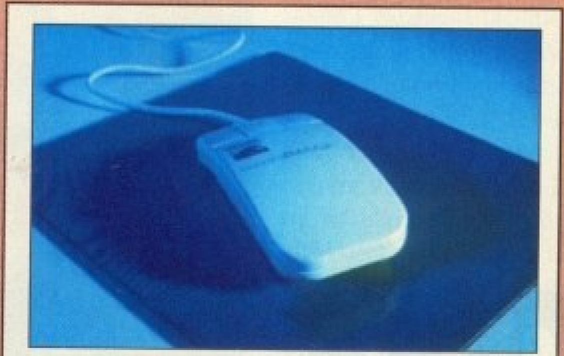
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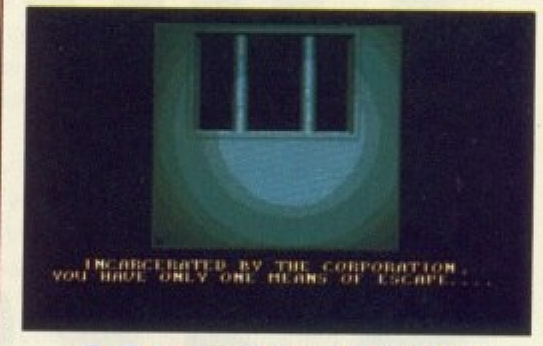
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Looking for a professional DTP package? Saxon Publisher comes bounding in with boxfuls of delight, but it's not for the faint-hearted, as Richard Williams found out

The Saxon angle



Frames and boxes with little handles you can grab hold of with your mouse pointer are well-known to users of desktop publishing systems.

With their *bounding boxes*, the developers of Saxon Publisher, Canadian company Saxon Industries, claim to have gone one better.

Before revealing the delights of the Saxon boxes, and describing some of the package's other features, one or two of which might lead the easily-frustrated to use a few choice *Anglo* Saxon phrases, I offer for the uninitiated a few words of explanation regarding boxes and frames in desktop publishing.

They are the containers for the material – text and graphics – that goes into a myriad of publications from professionally produced magazines like this one (I have to say this to please the editor) with full colour separations output to a very high resolution phototypesetter, to the humble parish magazine printed on a mono 9-pin dot matrix machine.

With frames and boxes, you control the flow, position, shape and angle of text and graphics, and usually quite a lot more besides, depending on the power of the package you are using.

One excellent feature of the Saxon's bounding box is that, unlike some packages, there is no distinction between text and graphics boxes. The law according to Saxon could be stated as "a box is a box is a box".

This makes for less option selecting and also allows you to mix text and graphics in the same box without hassle.

The real magic

Although it may seem like a restriction at first, there are sound reasons for all printable elements being attached to bounding boxes – yes, that's right, without them there's absolutely nothing you can place on the pages of your earth-shattering publication or document.

You see, the real magic of a package like this is that the boxes can be manipulated in many ways to alter the representation of the items they contain.

It really is very easy to rotate, scale, skew, flip, expand or compress objects in just a few seconds. The Saxon box definition requester – one of the several dialog boxes asking you to specify parameters – shows you a representation of your box which changes angle as you select different rotation angles, a neat little trick which shows you fairly precisely

Tagging along...

One of the most important functions provided by any DTP program is the formatting of text blocks. In most documents, textual components will be the primary focus, the graphics elements serving as a secondary highlight.

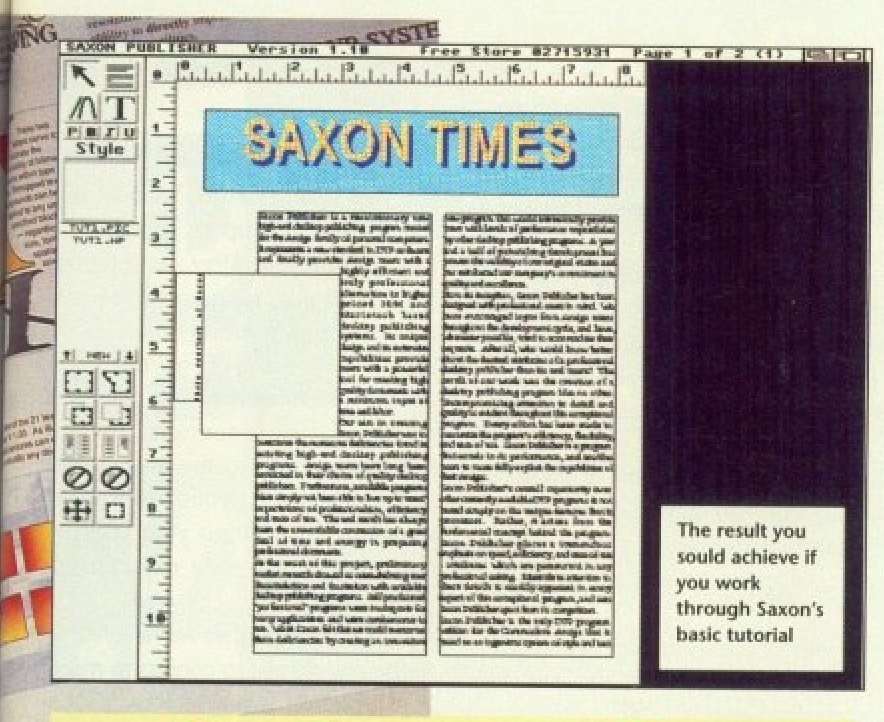
For maximum effect, text blocks must be well laid out with proper spacing, sizing and highlights to differentiate titles, headings and body text.

And, of course, once you've created one or several styles, you don't want to have go through the same procedures again every time you create a document.

A type style, fairly easily created through the medium of Saxon's requesters – boxes which pop up asking you to select or write in options – is a complete definition of parameters for rendering a paragraph, containing all the information about font, type size, texture and spacing. Once a type style has been defined, you give it a name and it appears in a list on Saxon's sidebar.

The great advantage is that paragraphs can be formatted and reformatted simply by highlighting them and clicking on an available tag style. All style tags can be saved and retrieved for later use in any document.

In other words, you never have to create a style twice.



The result you sould achieve if you work through Saxon's basic tutorial

Creating a template

Saxon's template feature allows pages of any complexity to be saved for later retrieval. The pages you save in this way can include bitmapped graphics, structured drawings and even text files.

You assign such page designs to function keys by invoking the Page menu and moving the pointer to "Assign F-Key". A small requester appears, asking you to enter a filename of up to 10 characters for the page being assigned.

After assigning a template called, for instance, AMIGACOMPU to function key F1, the sub-menu item will then read "Assign F-Key - F1:AMIGACOMPU". Pages saved in this way are actually stored in a directory within the Saxon Publisher program. If you're running the program from a floppy disk, you should be aware of the limited storage space available for assigned objects.

Assigned pages can be recalled whether or not a document already exists in the program environment. Simply hold down the shift key and press the relevant function key while in cursor mode.

Again, it's a case of once you've designed something, you don't have to go through the motions again. It's what time-saving, and therefore cost-efficient, DTP is all about.

what you're going to get. Having this large measure of control over boxes helps the typesetting process from both the user's and the computer's perspective.

Incidentally, not all boxes need to be rectangles. You can create freehand boxes with any number of corners.

Hardware demands

Before we go any further, some words of caution for the unexpanded and the slightly expanded. You either won't be able to run the program at all, or at least you'll find it very difficult.

Saxon is a powerful program, not intended for the fickle or faint-hearted, and that applies to the hardware, too. You really need a minimum of two 3.5in drives, although the manual says you can "theoretically" make use of the program with a single drive, but "at great inconvenience".

Unless your system has a hard disk, at least two floppy drives are needed to make working copies of the program. For those producing large and/or complex volumes, a hard disk is highly recommended.

Oh, and you'll need at least 1 megabyte of memory.

Although Saxon works properly with any standard Amiga display, a high persistence monitor is recommended to reduce the flicker caused by the highest resolution mode, which is what Saxon runs in. Unfortunately, long persistence phosphor monitors come very expensive compared with standard NTSC colour monitors.

The alternative is to use a flicker-fixing device. An inexpensive polarised screen can improve the stability of the display dramatically.

The review copy of Saxon version 1.1 that I used provided direct support only to PostScript compatible printers and phototypesetters. However, I'm assured the released version will provide dot matrix support as well.

Well, if that lot hasn't put you off, you must either have the bee's knees in hardware or be prepared to spend a good deal of money, and also want to produce quality documents or publications. At any rate, this will be the assumption for the rest of this review.

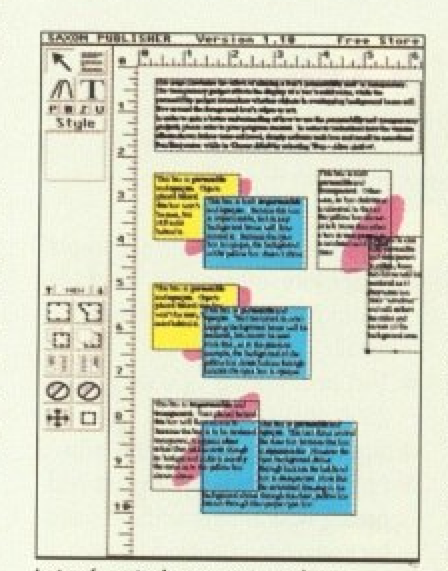
The best way to learn about Saxon's excellent facilities, and its few niggling bits, is to work through the Basic Tutorial in the manual and, if you survive that, the Advanced Tutorial which follows it.

Enter the first niggling bit – there are NO illustrations at all in either tutorial to show you what you should be achieving as you draw and manipulate your boxes, import your text and graphics and create your type styles and templates. The author seems to assume that you've read and remembered all the other parts of the manual.

I did eventually realise, however, that the the results to which the tutorials should lead you are included on disk, and you could, of course, print this out before you begin. Unfortunately, the bounding boxes, the sidebar containing your tools, filenames of imported text and graphics etc, are NOT on the finished job, so there's still no easy answer.

Take a tip from one who's suffered – make sure you read the Fundamental Concepts and Operating Parameters sections of the manual before going through the tutorials. The 20 minutes this will take will pay handsome dividends.

If you still have the occasional problem identifying what's on screen, look it up in the Specific Reference, Sidebar or Menu Strip sections.



Lots of control over pretty colours and shapes thanks to Saxon's drawing and bounding box facilities and other advanced features

The four modes

Apart from their lack of illustrations, the tutorials adequately demonstrate the features of Saxon. There are four modes of operation.

All manipulations to text and boxes are performed in **Cursor Mode**, when the pointer, or arrow, is the active tool. In this mode, all screen display parameters, including colour, are in force and it does seem to take an age on occasion for the screen to redraw itself after a change.

In **Paragraph Mode**, you perform all operations relating to type styles, as well as formatting of paragraph styles. Drawings created within Saxon Publisher itself, bounding box outlines and onscreen colours don't appear in this mode, since they are not required for text formatting. Things happen a lot faster as a consequence.

Text Mode allows you to manually enter characters into bounding boxes. You could write the publication you are working on in this way, though the idea with Saxon, as with all DTP packages, is that you import pre-prepared text and graphics, with only the odd headline, standfirst and caption to be written in directly. You also have the full range of facilities for editing and formatting text. Again, the display is a simple one in this mode, to keep things moving quickly.

Finally, **Drawing Mode** allows the creation and manipulation of structured drawings within your documents. A good range of tools includes line, bezier curve, connected line, rectangle, ellipse, polygon, and smooth line (similar to connected line but the angles where lines meet are converted to smooth curves). Rectangle, ellipse and polygon have filled versions as well for those who want to put textures into their drawings.

Drawing mode only affects drawings generated within the program. Externally generated drawings can only be manipulated while in cursor mode.

When Saxon first loads, the main area of interest onscreen is a panel

down the left side of screen, called the Sidebar.

This contains gadgets for selecting the four modes as outlined above, text style gadgets (plain, bold, italic and underline), and the screen positon gadget showing the portion of the document currently displayed on screen (magnifications of 30 per cent to 300 per cent are available).

The sidebar also contains the tag list. In paragraph mode, this contains the names of any text or graphics files which were generated externally and imported into your document or publication.

One of the delightful features of Saxon is that you can import files at any stage, right at the start of document creation, if you like, without having so much as placed a bounding box on a page.

What happens is that the name of the file – the tag – sits in the list in the sidebar until you've created a box or several boxes for it. Then, simply click on the tag and the text or graphic appears in whichever box is selected. If it's text which needs to be run into several boxes, clicking on the next box to select it, then clicking once more on the tag will flow the text on from the precise point at which it ended in the previous box.

As you continue to run in text in this way, it flows over or around any graphic elements according to the parameters you have given in the relevant requester to the boxes containing them.

In paragraph mode, the tag list displays a list of style tags. The "New" gadget at the bottom of the tag list enables you to create a new style tag, which initially will be the same as whichever tag was highlighted when you clicked on "New". Make the required changes and give the style a new name in the relevant requesters.

In drawing mode, the only entry in the tag list is the word "Retexture". When this is selected, the texture requester appears, allowing you to define the outline thickness and colours as well as the background textures for all structured drawings attached to the active bounding box.

Style transfer gadgets are also provided, allowing you to impose the style tag of the currently highlighted paragraph onto an entire section of text appearing either before or after it, either within the active box only, or for all boxes in whichever direction is selected.

The remainder of the sidebar consists of bounding box definition gadgets (rectangular or freehand are the two options); depth arrangement gadgets allowing you to change the current layering arrangement of overlapping boxes by moving the active box to front or back; and the self-explanatory delete box, delete contents, box moving and graphic filling gadgets.

The menu strip, which runs across the top of the opening display, is invoked in the usual Amiga fashion with a click of the right mouse button, and gives full control over document, importation of external files, pagination, bounding boxes, type styles, editing facilities like cut, copy, paste, search and replace, and preferences such as page view and ruler (inches, metric or pica/point rulers are available).

And in conclusion...

The two tutorials in the manual will quickly get you up to speed with Saxon Publisher. After completing the second one, I guarantee you will be ready, nay positively itching, to produce something of your own.

I don't altogether like Saxon's more complex requesters. There's not much depth to the little boxes you need to click (you should have remembered to bring your specs – Ed) and the type style requester in particular looks very cluttered.

However, now that we're so close to the end, I have to confess to more than a passing acquaintance with the likes of Quark XPress, Aldus Pagemaker, Ventura Publisher and even the package specially written for the OS/2 on the PC, DeScribe. Some of those packages have been out quite a few years now, and have had a chance to metamorphose into something nearer perfection.

My initial impression of Saxon is that it is good – very, very good, in fact, for those who can afford it and its rather hefty hardware requirements.

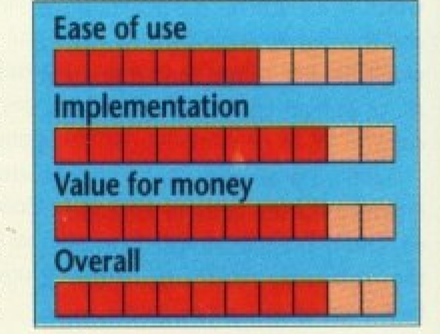
It's bound to improve with subsequent versions. With a few more things like some more fonts and the odd cosmetic improvement, Saxon Publisher will make the grade as a first rate, professional DTP package.

I'm certain, however, that it will see far more business than home use.

Saxon Publisher is a product of Saxon Industries, 14 Rockcress Gardens, Nepean, Ontario, Canada K2G 5A8 (613) 228-8043

Availability: Version 1.2 (with more features than version 1.1 under review, plus dot matrix printer support) available now

Supplier: Surface UK (081 566 6677)
Price: £199



Add some texture

Objects in Saxon Publisher can be textured in a variety of ways. Every page, box, style tag and internally generated structured drawing has a user-definable texture associated with it.

Options include bitmapped backgrounds, outlining thickness, transparent and solid colours.

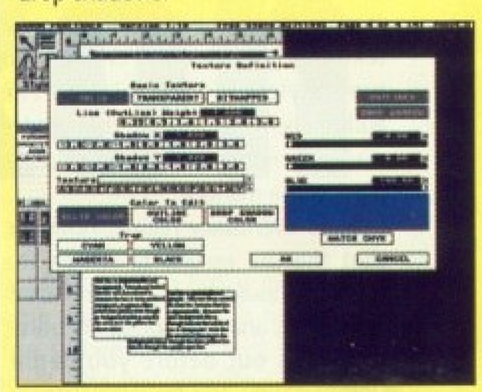
As far as text is concerned, outlines, backgrounds and drop shadows can have any solid colour hue associated with them.

In the texture requesters associated with any particular document element, users can specify colour as a combination of red, green and blue. The Colour Display Window provides a graphic illustration of the selected colour.

Alternatively, you can use the facilities for selecting colours as Printer's Ink, giving a more accurate representation of printed output, or CMYK values. This latter allows you to to specify exact ink density (as a percentage) of each colour separation (cyan, magenta, yellow and black) which comes off the output device.

Texture and colour are close partners when it comes to creating breathtaking effects in your documents. Experiment and enjoy is the name of the game.

A goodly range of ready-made pre-set textures is provided with Saxon Publisher. The range includes effects such as gradients, stonebricks and drop shadows.



The texture requester. The range and styles of textures and the control you have over them are excellent features of the Saxon package

Packed with features

As you would expect of a DTP package aimed at professionals, Saxon Publisher is packed with features.

Apart from those mentioned in the main part of this review, the notable ones include:

- Page sizes up to 20 X 20 inches are supported.
- Page backgrounds rendered in any user-defined solid colour or one of 21 bitmapped textures (still more textures can be ordered from Saxon Industries).
- Easily created column guides to assist with layout.
- Screen angles and densities defined to four decimal places.
- Ability to variably scale the final output scale of any document.
- Routines to double or quadruple output resolution of bitmaps without sacrificing sharpness or detail.
- Text sizes from 3 to a staggering 2000 points.
- Support for downloadable fonts.
- Facilities to directly import and print 24-bit images without need for conversion utilities.
- Support for Encapsulated PostScript (EPS) and PorVestor files.

Saxon Publisher

and finally...

Saxon Publisher - The inevitable product of development with efficiency foremost in mind. Its quality has made it the first desktop publisher to be certified compatible under Workbench 2.0 while its advanced capabilities have attracted a loyal following of satisfied customers.

POWERFUL FEATURES

Currently available is Version 1.2, a substantial improvement to an already exceptional program, incorporating such new features as **Pantone** and **CMYK** colour selection, variable tabs, point and pica measurement, automatic hyphenation and intelligent approach to manual kerning, **Saxon Publisher** now has full dot matrix and Compugraphic support, an integrated text editor and proprietary PostScript compression routines for faster output. With **Saxon Publisher**, even the most complex operations can be conducted in a matter of a few seconds. Drop shadows, for example can be created with a few clicks of the mouse pointer.

They can be rendered in any user defined colour, and can be offset in any direction. **Saxon Publisher** features the ability to *rotate, scale, skew, flip, expand* and *compress* both text and graphics. Though the use of transformation matrices, these highly complex operations can be conducted in a matter of a few seconds. No other program offers all these capabilities let alone the speed at which they can be accomplished.

EXPANDING YOUR SYSTEM

Saxon Publisher's overall superiority over other desktop publishing packages is not simply based on the number of individual features that it possesses. It goes beyond this to encompass every programming and design element found in this program. **Saxon Publisher** is a testament to our company's commitment to providing our customers with high quality products. However, depending on your previous experience with self-proclaimed professional programs, you may have found it hard to believe some of the assertions that were made in this article. We realise that professional productivity software is often an expensive investment, and would like a further opportunity to show exactly how remarkable a product **Saxon Publisher** is.

Saxon Publisher is a professional quality desktop publishing program created for the Amiga family of personal and business computers. With its highly intuitive user interface and its extensive capabilities, it easily represents a benchmark in page layout software for the Amiga.



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Not so Fast

I'm in possession of a revision 6 A500 with 0.5Mb expansion. Some time ago I modified the motherboard so I could have 1Mb of Chip RAM.

The problem now is that the MS-DOS emulator Transformer doesn't work, and when I pull down DPaint III's anim menu, it is ghosted out so that none of the options are available.

Could it be because there's no fastmem any more or is it because of a hardware fault?

If I buy another internal expansion board with 1.5Mb or more, can I then use my Transformer and animate in DPaint III and still have 1Mb of chipmem? I would really appreciate it if you could give me the answers to my questions. Keep the good work going – I think you're mag is the best there is.

J Hoogendoorn, Berkel-Enschot, Holland

As you guessed, the problem lies in your machine no longer having access to fastmem, at least in the case of the DPaint anim menu. I'm not so sure of the Transformer problem, but it is more than likely to be the same.

You can rule out hardware faults – if your DIY conversion had any detrimental effects on the motherboard, especially the dedicated chips, the results would be a lot more obvious than they are at the moment.

Anyone with expanded memory can use NOFASTMEM to turn off their fastram and then try DPaint III's anim menu. It won't work on a machine with no fastram, so you can rest assured that your Amiga isn't damaged.

The addition of a bigger memory board should allow you to use the full 1Mb of chipmem along with some extra fastram as long as you don't reverse the motherboard conversion. Your problem will then disappear.

Try before you buy

I am considering a hard drive for my A500, possibly the GVP. However I have a few uncertainties as regards hard drives, and I would be grateful if you could clear them up for me.

- How prone is a hard drive to magnetic forces? Mine would be sitting near my mini-speakers and television.
- Are there often any procedures to carry out during power on/off? (i.e head parking etc)
- What may usually cause a corruption of the disk?

Brett Buckley, Huddersfield

The GVP series 2 drives are fast and efficient, if a bit pricey, and you'll find a review of them in our February issue. As for your concerns:

- **Hard drives are quite safe from normal electro-magnetic fields of the kind generated by TVs and such like. I have a GVP sitting three inches from a monitor and ten inches from my A500 power supply at this very moment. There's no harm in taking precautions against EMP, but don't get paranoid.**
- **You won't have to park your drive heads during normal use. The only time this is necessary is when you move them from one location to another, risking heavy jolts or vibrations. Many hard drives these days, including GVP drives, will auto-park in any case.**
- **Corruption can be caused by many things, and although hard drives aren't as prone to physical corruption as floppy drives, they still go wrong occasionally.**

Dust and coffee can affect you mechanism, but the most common problems come about through mangled files and disk validation errors. FixDisk 1.2 from the March coverdisk will sort out most of these.

Suffering Seagate

Due to a fair amount of gross stupidity on my behalf I find myself without any software to get my hard drive going. I know that I should have made several back-ups and all that, but we all make mistakes.

Why didn't I just write to the manufacturer? Yes, you've guessed it, I've lost the address. The drive is a Seagate ST-225N and the interface is manufactured by a company called C Ltd, model SCSI-500 Serial No. 85 1L 595 Rev 1.2.

I can't find the manufacturer's address or any trace of them. Does anyone out there know their address or even know of any software that can get my drive going?

S M Smith, Manchester

Where did you buy that interface? I can't find the company either, but Seagate are easily contacted – phone (0628) 890366.

You should also contact the shop which originally supplied you with the SCSI interface – there should have been some hard drive tools with it. To get the drive up and running, you'll have to carry out a low level format. Seagate's tech support bods tell me they usually try memory addresses C800 and CC00 to activate the routines for this operation.

The process involves using an assembly debug program to find then address the correct memory location, so if you're not into machine code things could get sticky.

If you're lucky, the drive might already have been prepped and treated to a low level format. If this is the case, just turn to pages 5-3 and A-2 of the Workbench 1.3 enhancer software manual for the scanty information supplied with your machine.

If you can construct a mountlist entry and FORMAT the drive, it should be easy enough to MOUNT it and carry on from there. If this isn't sufficient, please send more information on your set-up, and the name of the supplier in particular, and I'll try to get you a more exact answer.

Picture-popper

A friend and myself have just started to do a reference program using the Workbench set-up. The program is self-booting, but what we'd like to do is load a picture then have it disappear before Workbench loads up.

We have designed a loading screen and called it *Manson*, but we would be grateful if you could tell us the commands to get the screen to work during our startup-sequence.

B Johnson, Rhyl

There are several IFF viewer programs available to do what you want. The most common ➤

is probably Vilbm, which will display any IFF format, including HAM, and will even display text. One of the most compact is PPShow, which will display files crunched with PowerPacker.

The forthcoming WorkStation disk will include PPShow and an example of what it does in the startup-sequence, but if you want just a viewing program, most PD libraries will be happy to supply one.

They all work in a relatively simple way. For example, to use Vilbm in your startup-sequence, simply include the line

```
VILBM <PictureName>
```

and the picture will be displayed until a key is pressed, then startup will continue.

Memory Game

I was interested to read your article on CLI in the March issue of *Amiga Computing*. I have an A500 with a full megabyte and I shall probably buy an extra drive.

At the moment I am interested in making better use of the RAM extension.

Games such as Monty Python seem to make extensive use of disk access, which is quite time-consuming. If you could explain how to run games in RAM disk rather than the floppy drive you would save me a lot of time.

Peter Tingle, Kingston upon Thames

I'm afraid I haven't much good news. The RAM disk is fine for a lot of uses, but you can't copy commercial games into it.

Apart from being illegal, it is usually impossible, as their copy protection does not usually allow for simple AmigaDOS operations. I mean, if you could copy a game into the RAM disk, you could copy it onto another floppy, and that would be piracy.

It should be easy enough to copy PD games into your RAM disk, but as many of these load completely into memory, you won't save much time by doing this.

Kind words for KindWords?

I've bought KindWords which I am now using, but not to the full extent. I cannot access any of the available fonts because I don't know how to go about setting the correct printer driver in the Preferences.

It's supposed to read EpsonX.PRN. By the way, I use an A500 with an extra drive and 0.5Mb extra RAM.

Zbigniew Pawlowicz, Hereford

When you load up the KindWords program disk, you should find the Preferences icon in its window. Double click on this to open the Preferences window, then click on the Printer icon.

This will bring up a screen with all your printing options. For the purposes of setting your printer driver, simply select Parallel or Serial, then click on the two arrows in the top right quarter of the screen until the EpsonX printer driver is highlighted in the central bar.

Now click on OK, then on SAVE when the next screen appears, and your preferences will be set to the correct printer – always assuming that your printer is working in standard Epson mode.

If it is a Star LC10, Panasonic KX1081, or one of the other popular 9- or 24-pin models, it will almost certainly be Epson compatible and should be perfectly happy with the EpsonX driver.

Xasperated music lover

I am a keen music enthusiast who tries desperately hard to write music using my A500 (with v1.2 ROM), MusicV 1.1, and MIDI synth. To add to my problems, I have found that strange things happen when playing back samples through MusicX and PD player programs.

The samples seem to play at the correct pitch most of the time, but every now and then MusicX plays a sample at what seems to be a random pitch.

As you can guess this makes them virtually unusable for producing music. I'm not sure whether this is a hardware or a software problem, although I can't recall having the same problem with Sonix.

Richard Hobson, London

The samples are playing at a funny pitch because they were sampled at a different rate. If you use a disk of PD samples, the chances of all of them playing at the same pitch are slim.

What you need to do is change the sample play rate and therefore the pitch, and the technique required is transposition. Your problem has already been solved for free! MED v3.00, as found on last month's coverdisk, includes a sample editor which is capable of transposing any sample.

Simply load in the sample, change the period rate, then save it out and the sample has been transposed. The Sample Editor document on the disk gives full details and provides a table of values to set for whichever note you'd like the sample to play at.

If you don't have MED v3.00 you can get it from Amiganuts PD on 0703 785680, or you can buy a commercial product like Aegis's Audio Engineer.

TV trouble

I have recently upgraded from a Commodore 64 to an Amiga 500. With my C64 I used a Ferguson TX television which has a seven pin din RGB input. I was wondering if I could use this capability with my Amiga as it would greatly enhance the picture and sound quality.

Martin Tomlinson, Wokingham

It should be easy enough to connect your Amiga to such a TV – all you need is the correct lead. Whether the RBG input is TTL or linear, and I wish you'd specified which it was, your local dealer will have a lead to connect the Amiga's 23 pin video port to an RGB din socket.

Quality will not be as high as with a full SCART connection, but it will be a lot better than using a TV with a modulator.

RAM revisited

I am a relative newcomer to the world of Amiga Computing, having bought a Class of the Nineties pack about two years ago, and have been using my A500 mostly for domestic purposes.

About a year ago, I bought a Microbotics M501 RAM upgrade and an extra drive. I have recently been trying to use the Amiga for adding titles and graphics to our video films via a Rendale 8802 genlock and DPaint III.

However, I have run into memory problems - it seems that my 1Mb is not up to the job.

To add to the problem, I recently purchased the Broadcast Titler 2 program, which I found requires a minimum of 1.5Mb to run.

Please could you help a green newcomer with some advice on upgrading RAM, especially as more and more of it appears to be needed to run the increasingly complex Amiga applications.

I have considered buying a hard drive, but understand that this would mean I couldn't run my existing programs, and would require an upgraded power supply. I would appreciate any help given in simple terms.

J R Russell, Uxbridge

As you seem to have the money to spend on reasonably expensive kit (the Rendale 8802 and BT2), I would advise you to go for one of the larger and more expensive A500 RAM upgrades. The ICD AdRam board fits in the Amiga's trapdoor and can be expanded to 6Mb. As such it is an attractive add-on, especially as it enables the full 1Mb of chip RAM with a simple solder connection fully explained in the helpful manual. Contact Power Computing on (0234) 273000 for more details.

Alternatively, there's the Cortex system from Memory Expansion Systems on (051) 236 0480. This is a large box which fits into the expansion bus on the left hand side of the A500 and can be expanded to 8Mb.

It is a quality product, and has a 'though-port' so that other devices, such as the hard drive you're thinking of buying, can still be attached to the Amiga.

As for hard drives, if you are going to put the Amiga to serious use, a hard drive is essential. It doesn't matter so much how big or fast it is - *any* hard drive is infinitely better than a floppy-based system.

Your power supply will be put under an increased strain by the memory upgrade, so you may indeed have to purchase a beefier unit from one of our advertisers.

Before doing so, however, give your new system a try. I use an A500 with a 6Mb AdRAM board installed. The power supply is an original Commodore unit, and works well enough, though I do on occasion suffer more gurus and crashes than my fair share.

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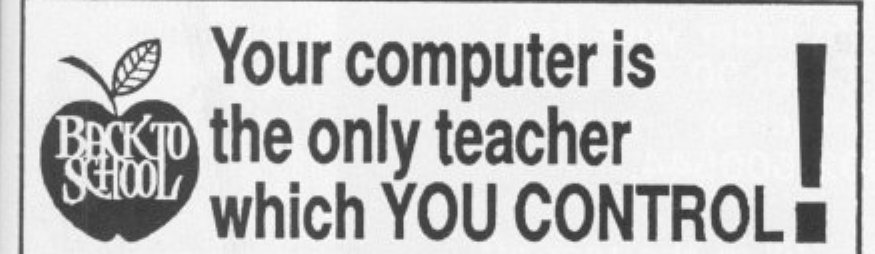
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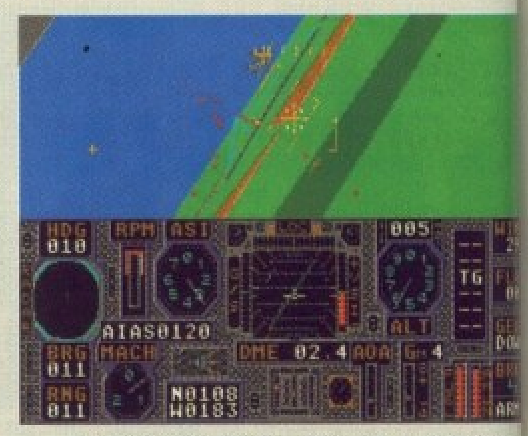
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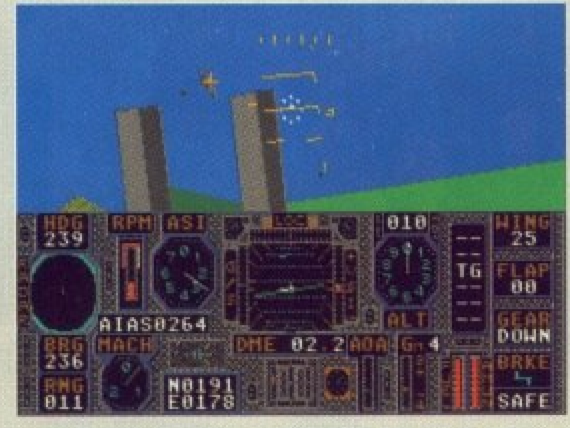
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Atari ST User February 19



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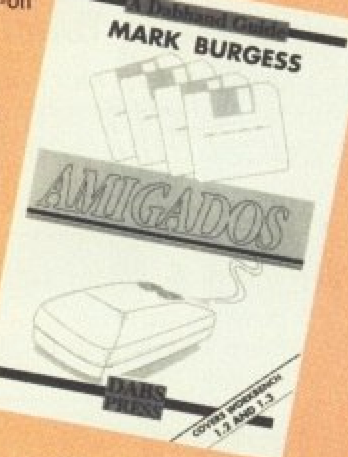
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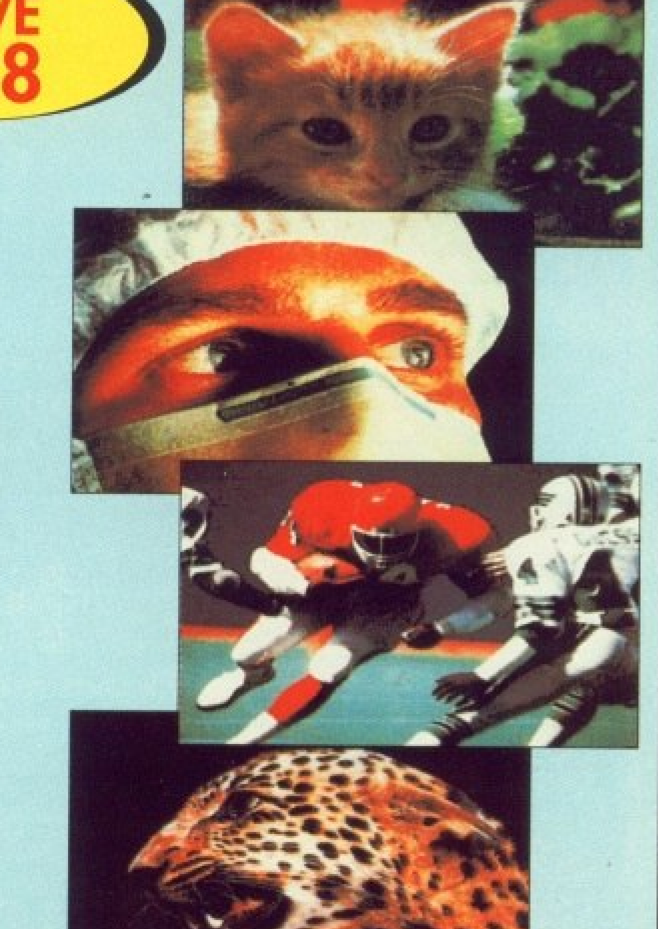
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Insight MUSIC 126
In the first of our Almanac Insight series, Paul Austin presents an in-depth look at a new music package – Sequencer One

DTV 129
Jason Holborn becomes a budget conscious executive producer in his search for affordable Desktop Video

MACHINE CODE 131
Let Margaret Stanger help you get to grips with the Amiga's graphics. See Bitmaps from a new Viewport after reading her column

MUSIC 133
Not to be outdone by Paul Austin, our other music maestro Jason Holborn brings you the low-down on the Amiga music scene

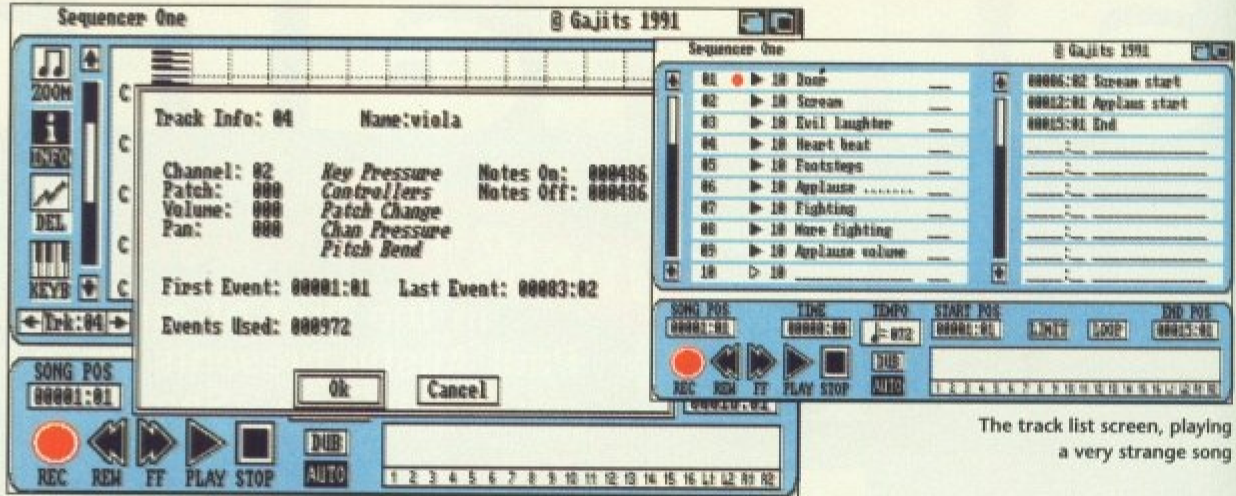
COMMUNICATIONS 135
Eddie McKendrick goes off-peak to stop his bank manager going off-colour. Saving money is the name of the game this month

AMOS 137
A first peek at the Amos Compiler and Amos 3D are just two of the treats that our expert Peter Hickman has in store

CODE CLINIC 139
Margaret Stanger helps you make the most of your intuition. Join her on the playfield as she takes a look at screen displays

DTP 141
DTP enthusiast John Walker illustrates the importance of design in DTP and shows how a little planning can go a long way

Serious sequencing made simple – Paul Austin rips the plastic off the latest music package.



All you need to know to keep track of things

The track list screen, playing a very strange song

Sequencer

It's been a long time coming but a credible alternative to MusicX and the rest has finally arrived.

Sequencer One is the latest release from Gadjits Music Software, the company gradually beginning to dominate the field of Amiga music processing. They've done it by keeping a close eye on what's happening with some of the big names in the business.

Last year, Roland, the instrument people, spotted the gaping hole in the Amiga market and as a result combined with Commodore to push their CM and D series synths and modules into the arms of waiting Amigans.

To support the move, Gadjits have followed up Roland's lead with patch editing software to support the needs of the new musos. As a result of the collaboration between Gadjits and Roland CM and D-series users will find Sequencer One particularly well suited to their set up.

This isn't to say it wouldn't suit any arrangement of equipment, and for those new to the idiosyncrasies of Midi and sequencing in general it could be an ideal introduction to the art. Gadgits have taken a refreshing look at the needs of the average Midi musician and developed the product with their requirements taking priority.

As a result Sequencer One is not an all singing and dancing mega music utility. It is however a dedicated sequencer which does exactly that and with the minimum of fuss. MusicX, the market leader, tries to be everything to everybody and as a result tends to fall a little short in certain areas such as the Library and Protocol pages, both of which are great in principal but difficult in practice.

The Gadjits alternative doesn't support either of these functions, but version two of the planned *Sequencer* trilogy will support both fetching and dumping. The prospects of imminent upgrades will no doubt make Sequencer One seem slightly less appealing, but don't despair – the chaps at Gadjits have seen the potential problems and promise upgrades to registered users at very reasonable rates.

What's on offer

The software consists of three screens, each giving you an individual view of your creation. The track list is the first of the three and has a maximum of 32 tracks available for either playback or storage.

As you no doubt know Midi supports a maximum of 16 channels of simultaneous playback. Nevertheless the remaining tracks are very handy for storing alternative tracks and those slightly dodgy bits you're not quite ready to throw away.

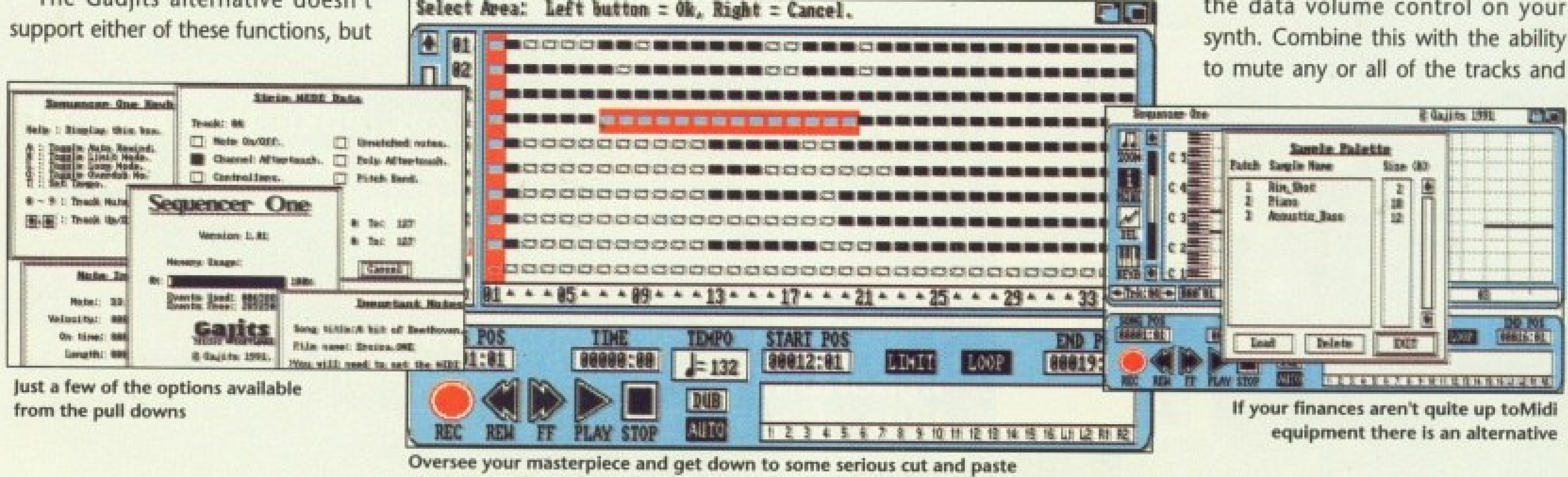
Switching between individual tracks is simply a matter of clicking the mute icon on or off. Selecting channels for recording is just as simple – just click on the track and the red record icon appears.

From then on the channel's selected. Pick a voice and hit the record button and you're off. This makes life easy for the beginner and blisteringly fast for the expert. If you're a reasonable pianist you can create a multi timbral sequence in minutes and all recorded at 192 PPQN.

Recording can be done in both standard and overdub formats and with optional auto rewind. Any mistakes are easily rectified with the undo last edit feature, which is great if, like me, you need ten attempts at even the simplest sequence. Each track can be separately marked for easy editing and drum machine style loops can be applied, saving a lot of time and tricky editing.

Perhaps my favourite aspect of the Track list is its potential on mixdown. When you've created the next Aggadoo Euro pop hokee cokee classic it still needs to be mixed and the Track List is excellent for adding the important finishing touches to the sound.

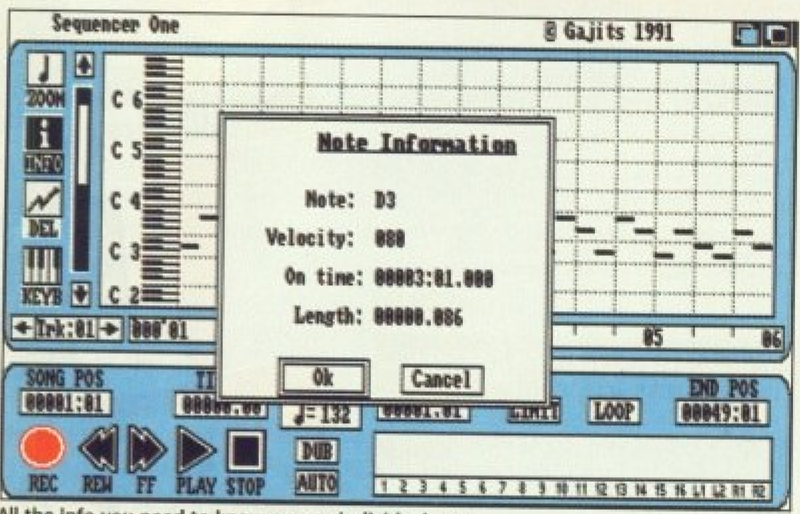
Once a track is highlighted with the record icon the volume of an individual track can be altered with the data volume control on your synth. Combine this with the ability to mute any or all of the tracks and



Just a few of the options available from the pull downs

Oversee your masterpiece and get down to some serious cut and paste

If your finances aren't quite up toMidi equipment there is an alternative



All the info you need to know on any individual note

r One

you have an instant digital mixing desk – marvellous!

The second screen is the Step Editor and as the name suggests this is where you can take advantage of the power that a decent sequencer can provide, removing notes you don't want and adding the really clever run that you could never manage live. It's this editing ability that makes the *Keep Music Live* lobby physically sick, but it also makes creating music accessible to almost anyone.

The editing screen takes the now familiar piano roll format. The zoom feature varies between full or quarter bar magnification which I found slightly limiting on occasion. For example, when editing drum patterns it's sometimes a little tricky to alter individual notes at the first attempt.

The info option is particularly pleasant and allows you to click on any note and receive all the information concerning its pitch, duration and so on. These various elements can then be altered by simply typing in a new number for each characteristic.

The delete icon has an obvious function and allows the individual deletion of notes. If you want to remove larger sections of a track you'll probably need to use the block option which lets you manipulate large sections of the track far in excess of the scope of the screen.

The block option is best activated by entering the start and end positions into the appropriate window. This can then be deleted, copied, cut or pasted as required.

Blocks can also be set on screen by simply clicking and dragging with the trusty rodent. Most operations involve the rodent with the occasional bit of typing as you add various start and stop positions.

It's also possible to use step entry via the KeyB icon, this brings up a miniature keyboard which displays various notes as they're depressed. The characteristics for these notes can be altered as required.

> *'If you want quality results quickly and simply you could do a lot worse'*

This is a particularly useful option if you're not an ivory tickler by trade as it gives you the option to work at your own pace. The only problem with this method is its tendency to lead to rather mechanical end results.

In general editing is reasonably simple with the block options being a particularly pleasant element. When this is combined with the overdub function and the tape deck controls, editing becomes a little more of a pleasure and a little less of a pain. My only real moan concerns the rather small graphics and the software's occasional hesitancy to delete single notes.

If you're suffering from this common complaint there may be a cure and the bar Editor could be it. If we described the Step Editor as musical micro surgery, the Bar editor would best be described as good old fashioned amputation.

This screen is a dream for the commercially orientated types who want to cut and paste their way to the charts. No subtleties here, just a touch of musical hack and slash as you move great chucks of your tune around to form verse, chorus, middle eight and so on. Sorry, I'm showing my age there, I meant to say chorus, chorus, chorus and chorus.

Range of options

To be honest the Bar Editor is a useful screen for anyone, giving a great overview of the entire piece and showing you exactly what's going on where. Again editing is a simple matter of clicking, dragging, deleting and pasting. You can always record from here as you can from any of the three screens with the ever present tape recorder controls.

As well as the record and play controls there's a whole range of options waiting on the menu bar in familiar, intuition-style pull-downs. All kinds of requesters and off/on options are available, some of which you can no doubt see from the complicated screen shot.

It's these pull downs which give the software the necessary complexity to compete with the likes of MusicX. It's possible to access and alter all kinds of sequence information varying from Midi import and export control, to block functions and the option to work with either (0 & 1) Midi formats. This gives a high level of compatibility with many other Midi packages.

The Hit Kit

For a limited period, Gadjits Hit Kit software is being bundled with every Sequencer One sold. It usually retails at £25 a time but for now it's free. The Hit kit is basically a collection of various sequences divided up into numerous styles with a number of options for each. For example, you could load a drum pattern from the Jazz section followed by a separate bass line, middle, lead and so on. These are all available in single bars but can be pasted in any number and combination.

As a result you can build completely new if less than original songs by mixing the various component parts. I've got to admit it's great fun sticking all the bits together, but to be honest the end results are a bit predictable, not to mention slightly silly.

Having said that though the number and quality of the drum patterns make the Hit Kit a godsend for even the most serious musos. The patterns alone make the Hit Kit well worth having and the various riffs in the many and varied styles can only help beginners learn a few tricks of the trade.

As I mentioned earlier Sequencer One is ideal for the beginner and to cater for that market the Amiga's internal voices have been well supported within the software. Even a separate sample palette has been added to make life a little easier.

Final thoughts

If you're new to Midi but not necessarily music, Sequencer One could well be ideal, featuring a good combination of ability and ease of use. To support such a sweeping statement I can only quote my own experience which consisted of creating a complete piece in a day without a glance at the short and sweet manual.

This alone should be praise enough for any software dealing with an area as complex as Midi. I doubt I could have done the same with MusicX and if I'd dropped the manual while trying I would probably have been in plaster for a month.

Sequencer One does not have some of the subtleties and skills of MusicX but if you want quality results quickly and simply you could do a lot worse than investing in Gadjits latest gadget.

Gadjits Music Software
1-Mex House
40 Princess Street
Manchester
M1 6DE
Tel 061-236 2515/4

If you're budget is a little tight, then Jason Holborn has got some good news for you



The Amiga may well be the machine to own for all things desktop video, but there's no doubting that pulling together even a half decent DTV setup can be an expensive affair.

Even at the most basic level, you'll need at least two video devices – one to provide the source video signal and another to record it – plus a genlock.

The video sources aren't too much of a problem. After all, you can hire such things for little more than a few pounds a month these days, so this is hardly going to break the bank.

The most expensive thing you'll probably have to invest in is the device that makes it all possible (excluding the Amiga, of course!) – the Genlock. These can set you back anything up to £2,000, but a fairly decent genlock can be picked up for around £250.

For the really skint amongst you, Applied Engineering's 'MiniGen' is about the only real option. There's no doubting that it's cheap, but its features are nothing worth writing home about. Picture quality is poor and there are no options for such things as fading and dissolving between video sources.

There's very good news, though. Silica Systems have announced that they intend to take on distribution of a meaty little genlock from the States called RocGen.

This little unit boasts many of the more sophisticated features that you'd expect from a genlock costing £500+, but all this power can be yours for just £117!

For your money, you get a Genlock that will allow you to overlay Amiga graphics onto any composite video source and then record the resulting mixed signal to video tape.

You can feed it a source video signal from just about any video device that can output a composite signal, including video cameras, VCRs, camcorders and laser disk players.

It can be powered either by the Amiga itself or via an external power supply for those of you who already have a large number of add-ons connected to your A500.

Unlike most genlocks, the RocGen features AutoVideo passthru which allows the signal from the Amiga or external video source to pass through the RocGen to the monitor or VCR even if either the Amiga or external video source is powered down.

But what really lifts the RocGen above 'budget' genlocks such as MiniGen is its powerful fading and overlaying effects. Using a tuning knob on the front of the genlock hardware, you can adjust the degree of both the fade and overlay.

Fade mode allows you to adjust the screen so that it fades from solely a computer graphic display to solely a video image. In overlay mode, the video image is pernamently displayed, but you can 'fade in' (and out) the Amiga graphics.

These effects alone will allow you to produce much more professional-looking presentations.

This feature alone makes the RocGen one hell of a bargain. Very few genlocks below the £500 mark offer fade and overlay controls, especially through a hardware control knob.

The RocGen is available now from Silica Systems on 081 309 1111. Expect a full review next month.

Genlock for pros

At the other end of the pricing spectrum comes Magni Systems' new Model 4005 PAL genlock for the Amiga that will set you back a cool £2000. Fully compatible with the Amiga A3000, it boasts full broadcast quality encoding.

It also offers comprehensive fades, wipes, chroma keys and overlays, all of which are controlled via a separate remote control.

As you'd expect from a genlock at this kind of price, the 4005 offers full S-VHS compatibility via Y/C connectors and it is fully compatible with all Amiga screen modes. For more, contact Magni on 0101 800 624 6465.

Tools for video

Eschalon Developments have just announced the release of their new Video Tools system, which they claim offers 'everything you need for video production'.

For your £300 (it ain't cheap!), you get a tool for creating subtitles and credits, a telepromter, an image presenter (a slideshow to you and me), a video pattern generator, colour bar and safe-area generators, text scroller, nine DPaint 3-compatible colour fonts and even a complete multimedia presentation system called Ascension.

Ascension is an AmigaVision-like program that employs both icon-driven operation and (for the purists among you) a powerful scripting language. If this sounds like the kind of thing you've been looking for, then contact Eschalon on 0101 604 520 1543.

Fonts galore

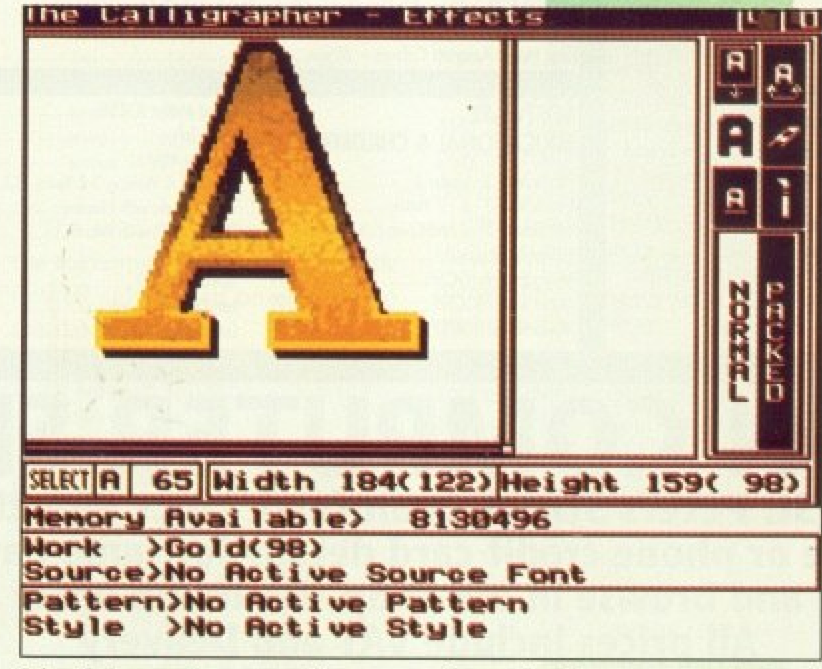
If you need some new colour fonts, then there are plenty of new releases on the horizon. By far the most common source of these fonts is America, where such companies as Zuma and Kara have been producing both mono and colour fonts for several years now.

A new company on the scene is Miami-based CV Designs. They've just launched a new three-disk set of colour fonts in a number of different point sizes upto 85 point.

They're completely compatible with packages such as TV*Text Pro, DPaint 3 and Calligrapher, making them ideal for people who wish to produce stunning text-based displays without having to put in too much effort. Each disk costs approx £15. CV are on 0101 617 391 9224.

Closer to home comes the news that Checkmate Digital Ltd (they of the A1500 expansion console for the A500) have taken on distribution of the Olo range of colour fonts from Swedish company Artovinjett.

As soon as they are made available, you can expect a full review in this column. Stay tuned until then, but in the meantime, you can find out more by contacting Checkmate on 071 923 0658.



Colour fonts can enhance your video presentation considerably.

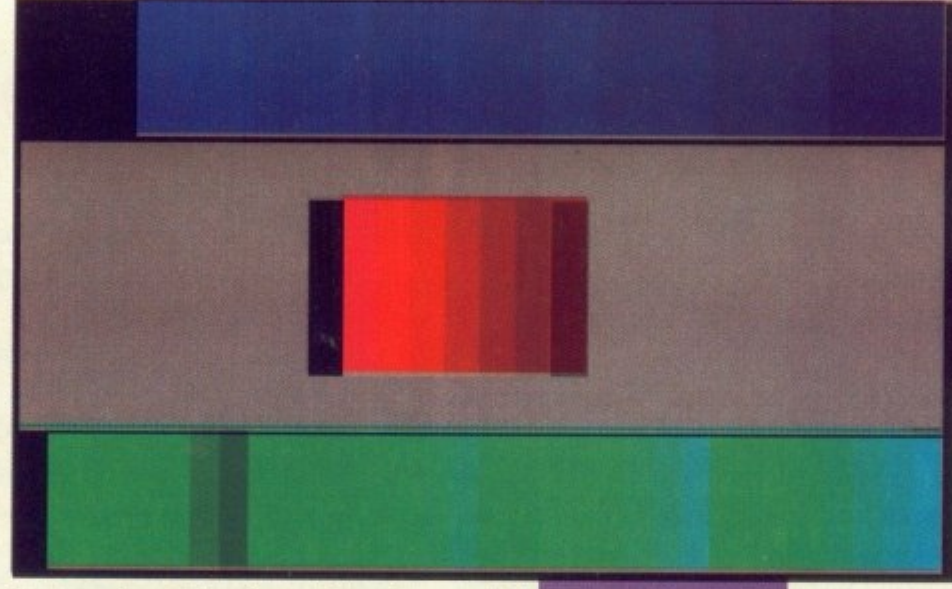
Next month

As well as the review of Silica's new RocGen genlock, I'll be bringing you a comprehensive look at what the PD libraries have to offer the Amiga desktop video enthusiast, including video titlers, presentation systems and slideshows.



Margaret Stanger goes primitive to create a graphics display using Assembler

Last month's Code Clinic discussed the video display in great detai, so I will skip some of the preamble and concentrate on creating a Graphics Primitives display using Assembler.



Graphic description

The colour of each pixel is related to the value of one or more data bits in memory. To create multicoloured images, the system must be told how many bits are required per pixel.

In my first Viewport (blue), I have used 8 colours and 3 bitplanes, and the system retrieves one data bit from each bitplane.

For each pixel data bits in the same horizontal and vertical position are combined by the system to create a binary value.

This determines the display color for that pixel. The system uses a bitmap structure which contains the height, width, depth and location of the bitplanes.

My view

The display is created from a set of instructions in the view structure., This structure is initialised using the command InitView, and linked to the first viewport.

Each viewport is initalised with default values, and its own para - meters are added later:-

```
lea      myview,a1
jsr      _LVOInitView(a6)
lea      myview,a5
move.l   #vpblue,d0
move.l   d0,v_ViewPort(a5)
```

Each Viewport needs a RasInfo structure containing a pointer to the bitmap with the bitplane information. If the viewport has dual playfields, the first RasInfo contains a pointer to the next RasInfo, which has a pointer to the second bitmap.

The picture in memory can be larger than the screen image, by creating a bitmap larger than the viewport area.

The RasInfo structure has the offsets for the relative position of the display to the complete picture.

In this example the bitplanes are the same size as the viewports, and the offsets are zero.

```
lea      myview,a1
jsr      _LVOInitView(a6)
lea      myview,a5
move.l   #vpblue,d0
move.l   d0,v_ViewPort(a5)
lea      vpblue,a0
jsr      _LVOInitVPort(a6)
lea      vpblue,a5
move.w   #320,vp_DWidth(a5)
move.w   #48,vp_DHeight(a5)
move.w   #0,vp_DyOffset(a5)
move.w   #0,vp_DxOffset(a5)
move.l   #vpredandgrey,vp_Next(a5)
move.l   #riblue,d0
move.l   d0,vp_RasInfo(a5)
```

Highly coloured

Left to itself the system will use default colours. There is a command GetColorMap which will allocate space for a colourmap and return a pointer to it.

```
move.l   #32,d0
jsr      _LVOGetColorMap(a6)
movem.l  d0,colourmap
move.l   d0,a5
move.l   cm_ColorTable(a5),d1
movem.l  d1,colourtable
```

The colourmap has a pointer to the colourmap's colourtable, and the desired colours can be copied into this data structure.

```
move.l   #31,d0
lea      colours,a5
move.l   colourtable,a4
colourloop:
move.w   (a5)+,(a4)+

colours:
dc.w   $0,$00f,$00e,$00c
dc.w   $00a,$008,$006,$004
dc.w   0,0,0,0,0,0,0,0
dc.w   0,0,0,0,0,0,0,0
dc.w   0,0,0,0,0,0,0,0
```

All bits mapped

Each bitmap is initalised using InitBitMap with the required width, height and depth as inputs. The command AllocRaster is used to allocate each bitplane. The returned pointers are linked to the bitmap.

```
lea      BMblue,a0
move.b   #3,d0
move.w   #320,d1
move.w   #48,d2
jsr      _LVOInitBitMap(a6)
lea      BMblue,a5
move.l   #2,d5
lea      bm_Planes(a5),a4
blueraster:
move.l   #320,d0
move.l   #48,d1
jsr      _LVOAllocRaster(a6)
tst.l    d0
beq      abort1
move.l   d0,(a4)+
dbra     d5,blueraster
```

Flicker free

Now that all the data structures are complete, the command MakeVPort asks the system to make a set of display instructions (or copper list) from the structures in the Viewport.

This has to be done for each ViewPort. The command MrgCop merges these copper lists into a single instruction list.

LoadView turns on direct memory access (DMA) and the display will be shown on the screen. Any flicker can be reduced by waiting for the beam to reach the top of the frame.

```
remakedisplay:
lea      myview,a0
lea      vpblue,a1
jsr      _LVOMakeVPort(a6)
lea      myview,a0
lea      vpredandgrey,a1
jsr      _LVOMakeVPort(a6)
lea      myview,a0
lea      vpgreen,a1
jsr      _LVOMakeVPort(a6)
lea      myview,a1
jsr      _LVOMrgCop(a6)
jsr      _LVOWaitTOF(a6)
lea      myview,a1
jsr      _LVOLoadView(a6)
rts
```

Each area can have its own set of drawing instructions, or RastPort structure. InitRastPort puts in default values. When the RastPort has been linked to its bitmap it is possible to use the Graphics Library drawing commands.

Getting the picture

The listed program first saves the address of the old view using the gb_ActiView offset from the graphicsbase. The view is initalised and three viewports.

The first viewport is 48 lines high with 8 blue colours and three bitplanes. The second viewport is 100 lines high with dual red and grey playfields. The third viewport is 48 lines high with 32 green colours and 5 bitplanes.

The drawing routines have been used to produce a series of rectangles on the screen. In the second viewport the grey playfield is dominant except for transparant areas of colour zero.

There is a short delay before the first 8 colours of each viewport are cycled, and another delay before the program releases the allocated memory, replaces the old view and exits.

EDUCATION SECRETARY GETS TOUGH OVER FALLING SCHOOL STANDARDS

Bad spelling to cost pupils exam marks

Passing an exam . . . applying for a job . . . whatever you want to do in life you need to be able to SPELL!

There's mounting alarm about the appalling standards of spelling among Britain's schoolchildren. MPs, teachers, parents and employers are all stressing the vital importance of being able to spell correctly.

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Instead of zapping aliens it could be turned into the best weapon of all to deal a body blow to bad spelling. With the help of a brilliant new software package that not only makes practising spelling painless but also loads of fun as well.

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Rocket: *Hidden words have to be discovered in this hi-tech version of the old favourite Hangman. If they are guessed correctly the rocket will blast-off. Fail and all that's left is a load of scrap.*

Lunar Buggy: *Type fast for fun. The aim is to key in the word as it's pulled across the screen by the buggy. It has to be completed before the letters drop down a crater.*

All Mixed Up: *Jumbled letters have to be sorted out to find the scrambled word. To help beginners – and anyone else who is stuck – clues can be obtained at the press of a key.*

Conveyor Belt: *Words pass by on the screen and have to be remembered. Then they must be typed in – spelt correctly. This is a challenging test of both spelling and memory.*

All the programs have several options for extra flexibility – like a timer with on/off option to add that extra challenge.

In addition to using the 5,000 words provided, parents – or children – can create their own word lists for using with SPELL! This makes the package ideal for practising those hard-to-learn words, or for "Learn these spellings" homework.



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PHONE ORDERS: 051-357 1275

Jason Holborn brings you the latest gossip from the Amiga music scene. Miss this at your peril



Music

Fans of Demonware's acclaimed game music creation system TFMX will be pleased to learn that a major upgrade will be with us really soon.

Demonware have listened to many of the criticisms which were levelled at the original release, updating and adding features to TFMX 2.

The new program boasts many new features including comprehensive editing tools and full support for Midi, making TFMX 2 one of the most powerful sound chip composition systems yet produced for the Amiga.

Probably the most major new feature is the inclusion of support for Midi communications. TFMX can now be operated via Midi-compatible devices such as synthesisers, mother keyboards etc.

Obviously the most immediate use is for the input of performance data by playing it directly on your Midi keyboard, but TFMX also features powerful Midi synchronisation options. These allow TFMX to tranform the Amiga into a dedicated 4-channel Midi sound module.

Editing was particularly poor within TFMX 1, especially if you were used to the more traditional method of music composition. Thankfully, Demonware have taken notice of this obvious omission with the inclusion of an all-new Pattern Editor which allows TFMX sequences to be edited in a graphical form, much like those editors employed by Midi sequencers.

Sampled instruments may sound realistic, but they have one major failing – they eat memory, lots of it. For those of you with extravagant tastes but not enough memory to satisfy them, TFMX now has a comprehensive synthesis module which allows you to create analog-like synth sounds that fill only a few bytes of your precious memory.

You can create realistic (and very trendy) acid-like squelchy bass sounds and sweeping analog tones.

TFMX is now a complete one-stop music creation system. Not only can you arrange scores, but you can now create your instruments without having to first load a dedicated sample editor.

If you've got a sampler connected to the parallel port of your Amiga, you can even grab samples from directly within TFMX and then clean them up using its comprehensive sample editing tools.

Here it is – an exclusive picture of Teijo's new 8-channel music eidtor, OctaMed

Med goes pro

Hot on TFMX 2's heels is a brand new release of Teijo Kinnunen's acclaimed PD music editor, Med. After putting the finishing touches to Med version 3 (it's on the coverdisk!), Teijo is now beavering away on a new release which is not only more professional than previous ones, but has one major feature that leaves most of the competition standing – it is 8-channel.

OctaMed is fully compatible with previous releases, but Teijo has pushed the Amiga's sound hardware to its very limits to allow a maximum of eight different sounds to be played simultaneously. Although not an original idea (Oktalyser has been doing it for months now), OctaMed sacrifices nothing in the sound quality department.

Editing has also been tidied up substantially. OctaMed will include a powerful MusicX-like bar editor which employs a sort of 'semi-stave' approach to allow you to view your musical creation in a more familiar format than the usual vertical row of numbers.

Teijo had intended to sell OctaMed as a commercial product for about £50 to £75, but in a fit of generosity this price has been slashed to just £10. Teijo hopes that by selling OctaMed at such a low price, many more Amiga users will be able to afford what will undoubtedly be a major Amiga music release. For more info, contact AmigaNuts United on 0703 785680.

More Music-X

The news isn't all bad for MusicX owners, however. Microlllusions have revealed that a number of new add-on modules will soon be released. Although they are far from being major, they further extend the editing power of Music-X. Here's what is on offer :-

DEFLAM – Nobody can record a complex keyboard part into Music-X without a few mistakes creeping in. Quantization can correct all the timing errors, but what about all those little extra notes that seem to appear whilst your hands zip around the keyboard? You need Deflam. Deflam will automatically remove any notes shorter than a specified length.

SCATTER – Sequenced music has always been critisised for being too 'rigid' and perhaps even too 'perfect', but you can now inject feel (timing errors!) into your music to make it sound more human. Scatter achieves this by adjusting the parameters of a selection of randomly chosen notes.

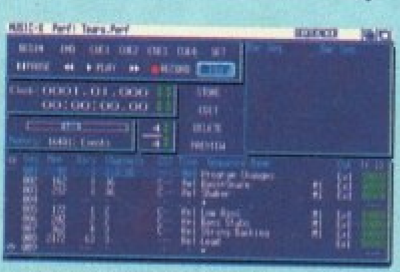
PRINTEVENT – You don't need a brain the size of a planet to guess what this does! Put simply, PrintEvent er,... prints events. It allows you to get a hard copy of the sequence data displayed within the Music-X Event Editor.

Music-X 2 bites the dust

Yes, the unimaginable has happened – Microlllusions have killed off what is undoubtedly the most important Amiga music product in existence.

There's no doubting that without Dave Joiner's acclaimed Midi sequencing system, the Amiga would never have achieved the success within the music industry that it is now enjoying. According to a source close to Music-X programmer Dave, he has ceased development of Music-X in favour of products for Commodore's forthcoming CD-based Amiga, the CDTV. Despite considerable interest from users, it seems that Music-X version 2 may now never see the light of day.

The new release promised to add many of the features that MusicX users have been crying out for – full score editing, drum editing, plus a whole lot more. Unless a third party developer decides to fill the gap left by David's decision, it looks as if MusicX users will be left high and dry.



Has Music-X bitten the dust

Books for musicians

Prolific author RA Penfold has released a new book that may be of interest to Amiga musicians. Published by PC Publishing, the new book is called Advanced Midi Users Guide, the follow up to Penfold's previous Midi book, the Practical Midi Handbook. PC Publishing can be contacted on 0732 770893.

Ear shattering offers for Amiga Computing readers

Make the most of your Amiga's superb sound capabilities by linking it to Soundblaster's high quality stereo amplifier and speakers.

Using the latest microchip technology, the specially designed amplifier can deliver an ear-shattering five watts of music power. Twin controls provide complete control over volume and balance.

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Making full use of the Amiga's unique four channel stereo sound system, Quartet is equally at home playing Depeche Mode or Debussy. Quartet comes complete with full instructions, a disk full of sound samples and full source code to allow you to intergrate your tunes into your own programs.

What's more, Quartet is MIDI compatible, so you can connect a suitable keyboard or synthesiser to enter notes directly.

It's the ideal sequencer package to complement the excellent Master Sound sampler

– Amiga Computing, August 1990

Quartet comes with full instructions and two disks for just £39.95



Master Sound

Capture any sound you hear and replay it in seconds

It's so easy to use: Simply connect the sampler to your Amiga, load the software and immediately you have the ability to capture sounds with amazing accuracy.

Connect your compact disc player or personal stereo and digitise sounds to incorporate into your own games and tunes.

The supplied software provides complete control over the sampled sounds: Cut and paste them, flip and fade them and you're still only using a tiny fraction of the sound processing tools available.

Best of all, the comprehensive instructions will soon have you creating your own public domain demo disks complete with IFF picture files.

It's the perfect sound sampling package for beginners and experts alike.

Master Sound is a complete hardware and software sampling system for only **£34.95**

"Is it real or is it Master Sound?"

– Amiga Computing, May 1990

See order form on page 124

Is getting online getting to your finances? Eddie McKendrick helps calm your bank manager down



Communications

It cannot be denied that whatever else Comms may be, it is not one of the cheapest hobbies known to man.

Countless people catch the comms bug, only to spend more cash than they can afford. Huge bills mean huge hassle, taking the fun out of getting online.

There are two factors to consider when trying to keep costs down; distance and time. Using the right software it is possible to get more out of comms while putting less time and money in.

Down the local

With the advent of digital telephone networks it is as easy to get a good connection to the USA as it is to call a board three doors down the road.

International calls are not cheap, even at cheap rate. The bulk of downloadable software tends to migrate over to the UK fairly quickly and messages go global via the various mail networks.

If you are going to call a foreign board, ask yourself if it is really worth it before spending loads of money downloading or reading something you could probably have sourced in the good old UK.

It is possible to become even more canny, if less adventurous, and try to restrict long bbs calls to those within your dialling code area.

Just as messages and files find their way into the UK from abroad, they will find their way to a local board given a little time. Some people would argue that the whole point of comms is to get your keyboard out and about and explore the world with the aid of your trusty modem. It's all very noble, but a file is a file is a file, no matter where it is downloaded from.

Clock Watching

With comms perhaps more than any other hobby, time truly is money. The less time your modem is hooked up to the line, the lower your telephone bill will be.

You can stop the online timer getting to dizzy heights by using the cleverest comms packages and utilities you can lay your hands on.

If you regularly download files it makes sense to use the fastest transfer protocol you can. Most decent boards support Zmodem, as do most respected comms packages for the Amiga.

If waxing lyrical at length is more your cup of tea, it is possible to use offline mail readers to download, read and reply to messages at your own pace. It's amazing how much more intelligible people become when they have time to think before they type in messages.

The time, the place

Another obvious tip which tends to be lost on most comms buffs is to use the telephone lines when it is economic to do so. BT have three charging bands for calls within the UK. Peak rate is between 09:00-13:00. This is when it will cost you more to "make that call". Moderately cheaper, but still by no means a bargain is "Standard" rate. This is operational between the afternoon hours of 13:00-18:00 and also the odd hour in the morning between 08:00-09:00.

BT's bargain basement hours are between 18:00 and 08:00 Monday-Friday and all day Saturday and Sunday. This is the only time you should really entertain going online for any degree of time. Make no mistake, "Cheap" rate isn't really cheap at all, but it is the best deal you can expect from BT's pied piper.

If you go in for long distance communicating and you are fortunate enough to be hooked up to a digital exchange, you should get Mercury at your first opportunity.

The Mercury Communications network cannot handle local calls but it can save you a fortune on national and more importantly international ones.

Subscription to Mercury is less than £9 a year and using it can save around 25% on national calls and 14% on international ones, providing you use the service off peak. For more information on hooking up call their information line on 0800 246 000.

Ezra Online!

Amiga Computing can be contacted on a whole host of bulletin boards and conferencing systems.

If you have anything to say to us, do get in touch. We can't promise to reply to all mail I'm afraid, but we will do our best!

Here is where you can find us:

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The Direct Connection	uad1132
01 For Amiga	Amiga Computing

A regular monthly look at the world of Micronet

Going Guardian

Dialtalk personas might be interested to know that Guardian Zenith has left the system. The nightline on DT is now hosted by a new addition to the team, Guardian Enigma.

A number of people have written in and asked if Zenith works for Amiga Computing. Sufficient to say, I know him quite well.

Off-peak MBX

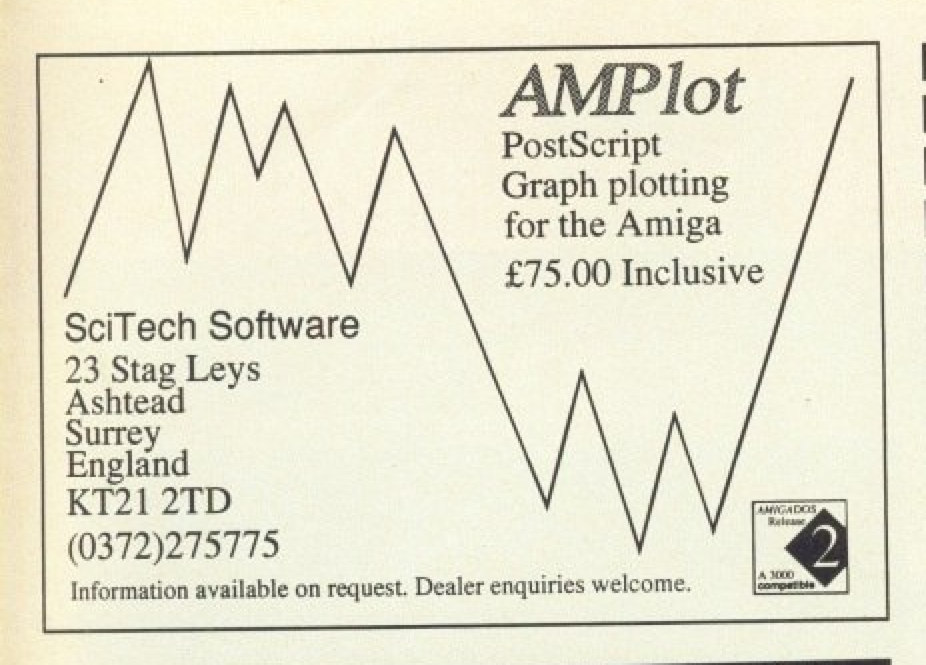
April 1 was an important day for Micronet subscribers. Although the quarterly subscription has increased, there are now no time charges off-peak. For the first time this also applies to Prestel and Mailbox.

Remember though that MBX services like "acknowledgements" and "reply to sender" still cost.

Noise on the Net

Following last summers suspension of Chatlines on Micronet, things have been a wee bit quiet on the interactive discussion and debating front.

The Net has re-introduced "Line Noise" to get people talking again. Moderated by Micronet's very own host with the most, Daemonn Brody, the Line Noise sessions thrash out a different topic three nights a week.



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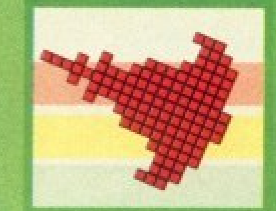
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VISA

Peter Hickman with a flipping good idea for getting hundreds of objects onscreen without incurring speed penalties



Amos

Phew... What a month! The AMOS Compiler has finally arrived, and it's pretty nifty.

On my B2000 it compiles the average program (about 60k of source code) in eight seconds! A full review will appear soon.

Also in the final stages of completion is the long-awaited AMOS 3D, which should be available within days of reading this (well, maybe a couple of weeks).

The 3D system comes complete with an editor which allows you to create just about any type of object you could want simply by glueing different shapes together.



Coming soon AMOS 3D

Smooth moves

The AMOS Public Domain Library now has over 190 disks in its catalogue. Give Sandra Sharkey a bell on 0942 495 261 for more info about prices and availability.

The last piece of news is that Mandarin have changed AMOS for the German and American versions. Instead of being released with the Castle AMOS adventure game's the package will now contain a simple card file program called Dataflex (which by the way was written by me!).

AMOS handles animation very well, and the theory behind creating and moving smooth cartoon-like objects in AMAL is very simple (we covered this in an earlier AMOS column).

Of course there are limits to the power of AMAL and you really cannot have more than about 16 large objects animating without things slowing down.

Have you ever wondered how to get hundreds of objects on a screen without incurring the speed penalties that you might expect from any of the usual animation methods?

The answer is simple – page flipping. This is a technique where you draw objects on different screens and then jump between each screen to create the illusion of movement or animation. It's a bit like drawing little matchstick men in the corner of a book, each one in a different position, and then flicking through the pages to create your own little movie.

On the cover disk you will find a sprite file called MEN.ABK, load this into AMOS from direct mode and then go back to the editor.

First we hide the mouse, and set up two variables. SPNUM is the number of the BOB we will draw onto the screen and MXSCREEN is the number of screens (+1) we will use to do our page flipping.

```
Close Editor
Close Workbench
   Hide On
   MXSCREEN=6
   SPNUM=1
```

Next we must open up all of the screens that we will use in the demo. Half meg owners should just about have enough memory to open seven screens if they don't have an external drive (if you do switch it off!).

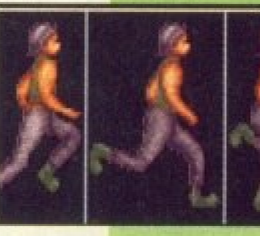
```
For I=0 To MXSCREEN
   Screen Open I,320,200,16,Lowres
   Flash Off
   Curs Off
   Cls 0
   Autoback 0
   Get Sprite Palette
   Screen Hide I
Next I
```

Now comes the interesting bit – we first draw a man, flip the screen, draw another man (in a slightly different position), flip the screen etc. We change the BOB we will use by incrementing the variable SPNUM.

When the Amiga bleeps just press a key and you will see the next piece of animation drawn.

```
For T=0 To MXSCREEN
   Screen Hide SCR
   Add SCR,1,0 To MXSCREEN
   Screen Show SCR
   Screen To Front SCR
   Screen SCR
   Paste Bob 120,70,SPNUM
   Add SPNUM,1,1 To 7
Bell
Wait key
Next T
```

Now we should have seven screens in memory, each with the picture of a running man in a slightly different position. We must animate these screens by flipping constantly through the screens. In the loop below I have chosen to wait for five VBLs (I explained VBLs in an earlier article!) before we swap to the next screen. If you want to speed up the animation just change the WAIT 5 line to WAIT 3 (or an even lower number for ultra speed!).




```
For LOP=1 To 500
   Screen Hide SCR
   Add SCR,1,0 To MXSCREEN
   Screen Show SCR : Screen SCR
   Wait 5
Next LOP
```

When writing a program which calls another AMOS program (a bit like the Fun School 3 menu does) you sometimes need to close all of the screens currently opened.

Unfortunately you do not always know what screens have been opened by a previous program, so to close every screen just use the following lines of code

```
While Screen<>-1
   Screen Close Screen
Wend
```

If no screens are opened then the function SCREEN will always return the value -1, otherwise it will return the number of the currently chosen screen. Simple huh?

Ok, that example was interesting but let's face it, one man running about and taking up seven screens in memory is hardly impressive is it? So how about a few more, 32 more in fact?

The next program follows the format of the previous one except that in the middle you will notice that it draws a lot more men on each screen!

```
Hide On
MXSCREEN=6
SPNUM=1
'
' Open screens
'
For I=0 To MXSCREEN
   Screen Open I,320,200,16,Lowres
   Flash Off
   Curs Off
   Cls 0
   Autoback 0
   Get Sprite Palette
   Screen Hide I
Next
'
' Generate screens
'
For T=0 To MXSCREEN
   Screen Hide SCR
   Add SCR,1,0 To MXSCREEN
   Screen Show SCR
   Screen To Front SCR
   Screen SCR
   For LOP1=0 To 160 Step 70
      For LOP=0 To 250 Step 25
         Paste Bob LOP,LOP1,SPNUM
      Next LOP
   Next LOP1
   Bell
   Wait Key
   Add SPNUM,1,1 To 7
Next T
'
' Do swaps
'
For LOP=1 To 500
   Screen Hide SCR
   Add SCR,1,0 To MXSCREEN
   Screen Show SCR : Screen SCR
   Wait 5
Next LOP
'
' Close screens
'
While Screen<>-1
   Screen Close Screen
Wend
```

Nifty or what? We've run out of room for this issue but on the cover disk you will find a few more examples, including movement combined with page flipping (and my head!!).

Have a play around with the routines and see what you can achieve, it's great fun.

Oh and by the way, the graphics for that geezer we have been experimenting on were drawn by a whizz of a graphics artist named Stuart Cambridge. Thanks Stoo!

Code Clinic



Margaret Stanger uses her Intuition and goes for a scroll...

My previous article described how to create a screen display using routines from the graphics library. A view and several viewports were defined, and some simple drawing done in each one.

Each Intuition screen also has a viewport. Once the viewport address is known the primitive graphic routines can be used on a screen and its windows.

Each viewport has a RasInfo structure containing a pointer to the bitmap with the bitplane information. If the viewport has dual playfields, the first RasInfo contains a pointer to the next RasInfo, which has a pointer to the second bitmap.

The picture in memory can be larger than the screen image, by creating a bitmap larger than the viewport area. The RasInfo structure has the offsets for the relative position of the display to the complete picture.

It is possible to link an Intuition custom screen to a custom bitmap when opening the screen. In this example the bitplanes (640 x 400) are larger than the viewport (320 x 200), and the offsets are zero to start with.

If the x and y offsets are changed, the viewport (or the window) displays a different part of the bitplane.

A very smooth scroll can be produced by increasing or decreasing these offsets up to four pixels at a time, and updating the display instructions.

If the offset is i, and the RasrInfo structure rired :

```
scrollx(i)
long i;
{
rired->RxOffset=i;
  /*update the x RasInfo offset*/
RemakeDisplay();
  /*Intuition updates the display*/
}

scrolly(i)
long i;
{
rired->RyOffset=i;
  /*update the y RasInfo offset*/
RemakeDisplay();
  /*Intuition updates the display*/
}
```

Every time the RasInfo offsets are changed the display needs to be updated using the commands MakeVPort, MrgCop and LoadView. The command MakeVPort asks the system to make a set of display instructions (or copper list) from the structures in the viewport.

The command MrgCop merges these copper lists into a single instruction list. LoadView turns on direct memory access (DMA) and the display will be shown on the screen. Any flicker can be reduced by waiting for the beam to reach the top of the frame.

When using windows and screens, the Intuition Library has a very convenient RemakeDisplay that updates the display in just one command.

The program produces the display by opening a SUPER_BITMAP windowon a screen with its CUSTOMSCREEN and CUSTOMBITMAP flags set.It could have been written as in last month's CODE CLINIC using graphics primitives only, without the Intuition Screen.

```
struct NewScreen TheNewScreen =
{
 0,0,320,200,3,
 1,3,
 NULL,
 CUSTOMSCREEN|CUSTOMBITMAP,
 NULL,
 NULL,
 NULL,
 &BMred,
};

struct NewWindow TheNewWindow =
{
 0,0,320,200,0,1,0,
 ACTIVATE|SUPER_BITMAP,
 0,0,0,
 0,0,
 64,20,320,200,
 CUSTOMSCREEN,
};
```

Both the screen and the window are linked to the bitmap (BMred) which is larger than the screen.

```
viewport=(struct ViewPort *)
  ViewPortAddress(thiswindow);

 /*save the viewport address*/

rired=(struct RasInfo *)viewport-
>RasInfo;
  /*save the RasInfo address*/
```

The drawing routines have been used to produce a series of red vertical and horizontal stripes on the screen.

```
stripes()
{
   /*find the RastPort address*/
redrastport=thiswindow->RPort;
for(i=0;i<31;i++)
  /*draw solid vertical stripes*/
{
SetAPen(redrastport,i%8);
RectFill(redrastport,20*i,0,32+20*i,400
);
}
for(i=0;i<20;i++)
   /*draw spaced horizontal stripes*/
{
SetAPen(redrastport,i%8);
RectFill(redrastport,0,20*i,639,10+20*i
);
}
}
```

The display scrolls right, up, left and down with a short delay in between.

```
scroll()
{
Delay(100);
for(i=0;i<100;i++)   scrollx(i);
             /*scroll right*/
Delay(100);
for(i=0;i<100;i++)   scrolly(i);
             /*scroll up*/
Delay(100);
for(i=100;i>-1;iñ)   scrollx(i);
            /*scroll left*/
Delay(100);
for(i=100;i>-1;iñ)   scrolly(i);
            /*scroll down*/
}
```

After the scrolling the program closes the window and screen, frees the bitplanes and exits.

The program uses graphics library routines, and also includes intuition library routines and the Delay routine from the dos library. Summaries of these libraries were included on the support disc in earlier parts of this series, and the routines are described in full in the ROM KERNAL MANUAL - Libraries and Devices.

● NEXT MONTH: Reading IFF pictures and decoding compressed picture files.

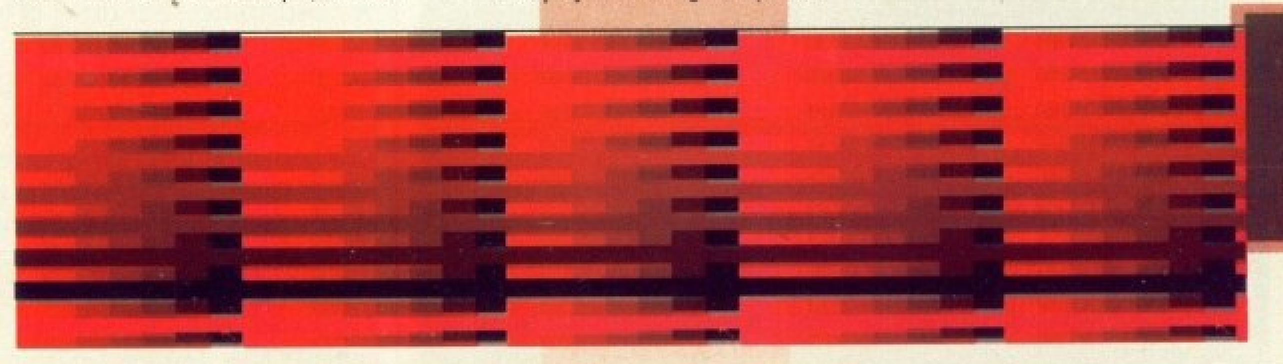
```
Listing of scroll.src
/*Amiga Computing*/
/*scrolling*/
/*c source code*/

#include (exec/types.h)
#include  (graphics/gfx.h)
#include  (graphics/view.h)
#include  (graphics/rastport.h)
#include  (graphics/gfxbase.h)
#include  (intuition/intuition.h)

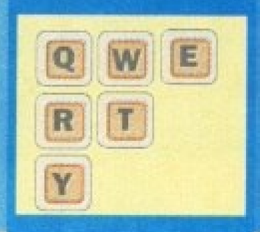
long libraries=0;
long i,k;                                  /*loop variables*/
short j;
struct GfxBase *GfxBase;                   /*graphics base*/
struct IntuitionBase *IntuitionBase;       /*intuition base*/
struct ViewPort *viewport;                 /*viewport pointer*/
struct BitMap    BMred;                    /*bitmap */
struct RastPort *redrastport;              /*rastport pointer*/
struct Screen *customscreen;               /*pointer to screen structure*/
struct Window *thiswindow;                 /*pointer to window structure*/
struct RasInfo *rired;                     /*RasInfo pointer*/

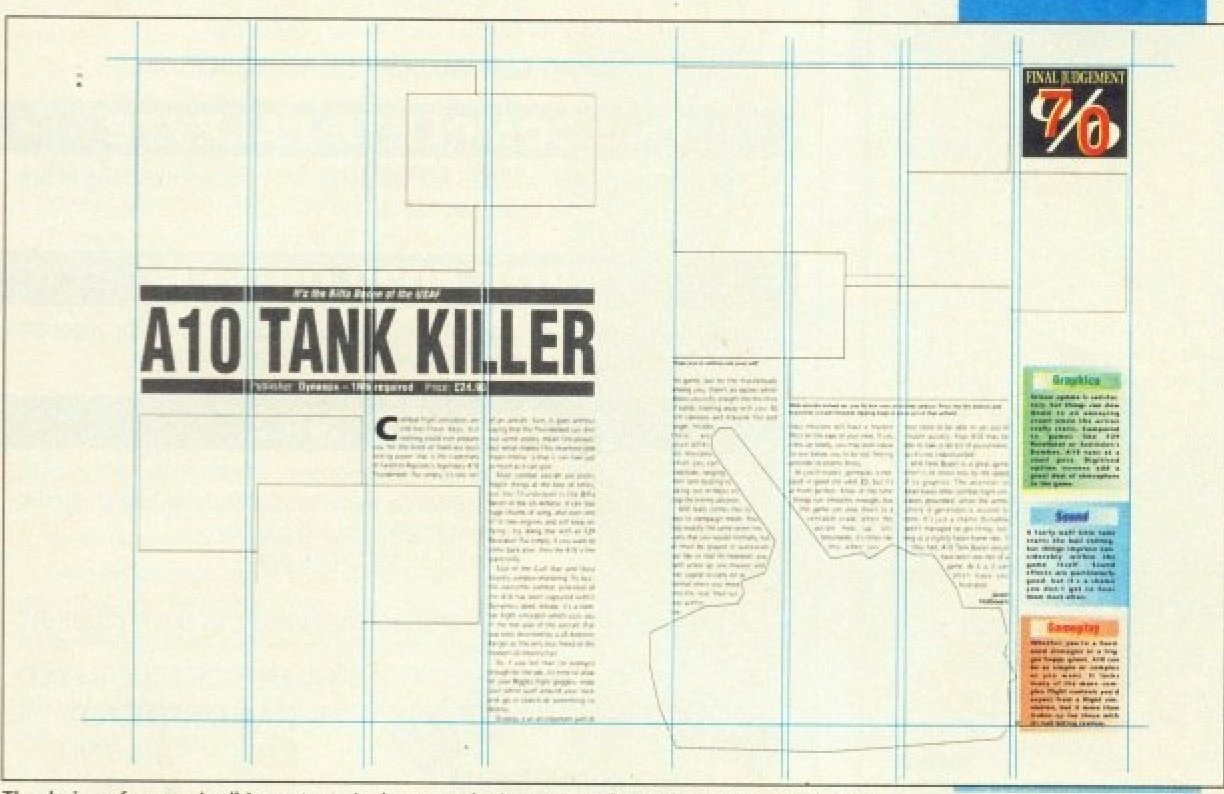
static USHORT colours2[] =                  /*the colours*/
{
0x000,0xf00,0xe00,0xc00,0xa00,0x800,0x600,0x400,
};

struct NewScreen TheNewScreen =             /*the new screen structure*/
Next Page | Prev Page | Next Line | Prev Line | Refresh | Print File | Exit
```



Are you confused by columns or having problems getting to grips with grids? Let John Walker guide the way with some design tips





The design of a page is all-important. And, no, we don't copy our design from somewhere else!

However carefully you typeset the words, write the headlines, choose the typefaces and illustrations, the result can still look a mess if you ignore the design of the page, which is not necessarily dependent on any of these.

The easiest way to design a good looking publication is to find something similar that you like the look of – and copy it (a technique not unknown to professionals).

Reproducing professionally designed work will help you appreciate its qualities. It does need to be something similar though. It's no good producing a newsletter for plumbers in the style of Vogue, or a job application in the style of Viz.

The best way is to grasp the fundamental principle that underlies most modern professional designs. The basic concept is that of a grid. Once that is mastered (and it shouldn't take more than a couple of lifetimes), you can approach any DTP job with confidence.

As its name suggests, a grid is nothing more than a division into measured units of your page. The vertical units are set by the margins, the columns that will contain your body text (that is, the main text of your publication excluding headlines) and the spaces between the columns. These are measurements set automatically by DTP programs from a requester box, which simply require you to enter the size of the margins and the number and width of the columns, when they will be shown on-screen.

Horizontal units will not be shown automatically. But DTP programs do include an option for a grid to be drawn on the page, which can be set at whatever measurements you need.

I use a grid of an inch square (or its equivilent in centimetres or picas, the other normal units of measurement).

A grid provides a structure on which you can build your design. The first decision to make is the number of columns to a page. Once that is set, the other elements – headlines and illustrations – slot into the overall design.

Cartoon capers

A page within which text is set in three columns automatically provides you with a choice of running your graphics or headlines over one, two or three columns, depending on the prominence you wish to give them. The grid structure enables flexibility. For example, in a three-column grid, you could also run an illustration over two-and-a-half columns with the caption to it occupying the other half-column.

Indeed, layouts often achieve a dynamic quality by having typographic or graphic elements breaking out of their space and occupying part of a neighbouring column. Comics (or graphic novels, if you want to be fancy), which adhere to the grid approach more strictly than most publications, use a similar technique by having figures stepping out of their frames to suggest movement or violent action.

But it is as well to master the more formal approach before breaking the conventions. The body copy or text provides the rigid structure of the design since it is normally placed on the page within columns of an equal size.

The text columns provide an overall and basically unchanging shape. Variety is provided within the columns by using type in different sizes, styles and more than one typeface. The density of the columns of type is lightened by the addition of sub-headings, which remain within the column setting.

Vision in Blue

Designers have usually worked up their layouts on special pages printed with grids in blue, which will not show up when the finished layout is photographed. You can follow the tradition by printing blank pages marked with a grid and designing your layouts on them. but it is quicker to do it on-screen with DTP programs.

You can specify the columns you want, import text, which at this stage can consist of anything (I keep a file of 1,000 words in Latin for this purpose) and have tinted boxes to represent the graphics. Using 50% magnification in Professional Page and PageSetter or the Show Full Page option in Pagestream will enable you to see the whole page on-screen.

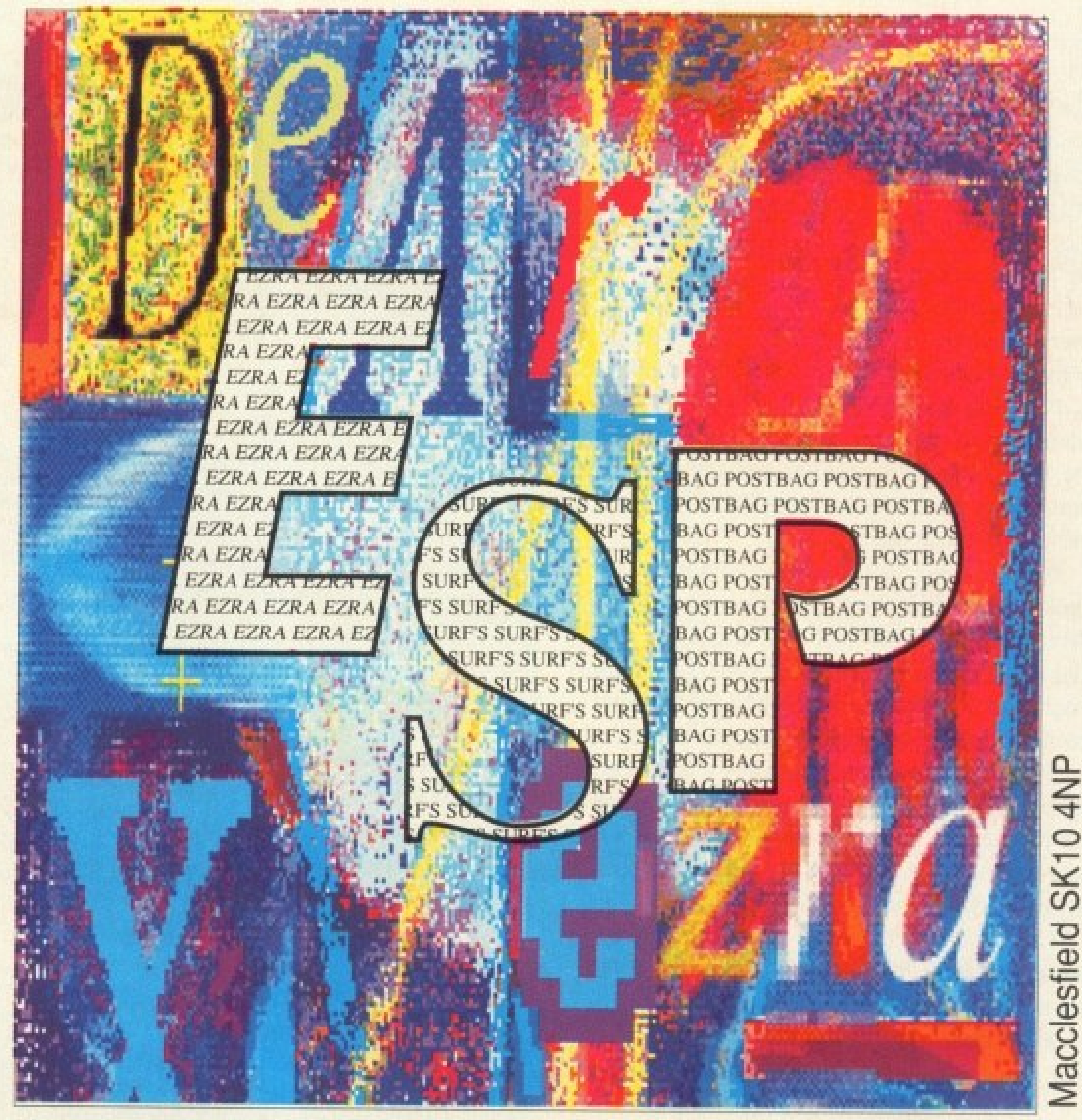
With PageStream, I usually work on the Show Facing Pages option, which displays two pages side by side. It's better to see both, since that basic unit of design of a book or newsletter or similar publication is a spread of two pages, which need to balance one another. It's a source of irritation that neither of Gold Disk's DTP programs yet provide this facility.

You can alter on screen the dimensions of graphics and play with the balance of text, illustrations and headlines far more easily than you can an on paper, where every change requires a fresh sheet.

Both Professional Page and PageSetter provide space next to the displayed page where you can store the various elements of the design while you move things around. In PageStream you can keep clip art and other elements in a separate window.

Obviously there's no room here to go into the basics of design in detail but the concept of the grid is easy enough to grasp. It is an enormous boon to beginners since it provides a firm structure and disciplined approach to any type of publication.

Our guest columnist John Walker edits the Amiga area on Micronet. This article is part of a series on DTP which can be accessed by keying *AMIGA# online.



Write to Ezra Surf, Amiga Computing, Europa House, Adlington Park, Macclesfield SK10 4NP

Speccy emulator

I am writing in reply to the letter headed 'Commodore Speccy' in the letter pages of issue 35 of Amiga Comuting.

The Spectrum Emulator is available from our PD Library at a cost of £1 for the disk plus £1 P&P.

The emulator has a range of features including the facility to load games from tape via a sound digitiser, which means that your old Spectrum games can be transferred to the emulator without trouble!

A complete listing of our offline PD library can be downloaded from our bulletin board on 0293-884117 (300 – 2400bd) or by post from Runway A500 (PD Sales), The Hope, Vicarage Road, Crawley Down, Sussex RH10 4JJ.

I hope this information is of help to readers inquiring about the emulator.

Steve Sheldon, Sysop Manager, Runway A500, Crawley Down, Sussex.

How's this for starters?

Judging by some of the recent letters and comments, a few of your readers want to know how to start in assembly language programming.

I've wasted quite a few quid on over-technical, assume-you-know-the-basics type books, and have finally found a good, entry level 68k programming book – 68000, 68010, 68020 Primer, by Kelly-Bootle and Fowler, published by Sams, ISBN 0-672-22405-4 (£20).

Although not specifically for the Amiga, it is an excellent book for beginners.

Keep up the good work on a truly excellent magazine and, no, I don't have an interest in the book company!

Michael Ferrier, Louth, Lincs.

I want to be transformed

Do any of your readers know of anyone who still sells 'The Transformer' PC emulator? I know it is slow and is text-based, but most of my PC programs are text-based anyway. Can you help?

L F Jones, Fordingbridge, Hants.

Is there anybody out there who can advise? Call us or write to us, and we'll be happy to pass on any glad tidings.

The creative urge

I would like to buy AMOS The Creator. However, my brothers tell me it is almost impossible to learn and start to wave their hands about to indicate the size of the manual.

Personally I reckon I could cope with the 300 page manual, the only problem being the time I would have to spend going through it.

Are they right in saying it is extremely hard to get to grips with, or are they just being sexist? Do you know of any demos of AMOS I can get hold of to try it out before I buy it?

Kate Hall, Wisbech, Cambs.

Buy it and prove them wrong, Kate. There is some work involved, as with all applications which fall into the more serious category, but if you're keen enough to succeed, you'll win through. Demos of AMOS? Contact Sandra Sharkey at the AMOS Public Domain Library, 25 Park Road, Wigan, WN6 7AA, Tel (0942) 495261.

Grovelling pays off

Congratulations on the best Amiga magazine by far: the others are only worth a casual flick through in the local newsagents. Amiga Computing is the only one worth buying.

I have only had my Amiga 500 for a short while but I am already very interested in DTP applications. I am contemplating buying Pagesetter II, but would like to know more about it before I spend my hard-earned money.

In the March issue I noticed a about in the 'International Rescue' section about an article reviewing this program in April 1990. Unfortunately I also noticed an item in the same issue saying back issues are not available.

Surely someone at Amiga Computing must have a pile of back issues in their personal stock because I can't believe such important contributions to Amiga literature would be thrown away, certainly not by such intelligent people! (is that enough grovelling?).

Please, please, PLEASE could someone send me a photocopy of this article? I know it will be an objective and thorough review, and I promise I will buy every issue in future.

Simon Snewin, Stoke-on-Trent

Back issue availability is unfortunately restricted to the last six issues at any one time, and it would be an administrative nightmare for us to start a general photocopying service. However, Simon, because you've grovelled so well, and so long as you keep your side of the bargain, you will be receiving a copy of our objective appraisal of Pagesetter II in the post any day now!

Incidentally, those back issues for the past six months should be ordered from Database Direct, FREEPOST, Ellesmere Port, South Wirral, L65 3EB. Back issues include the cover disk and the cost is £3.10. Postage is, of course, free if you're in the UK. See our Reader Offers near the back of this issue for full details.

The best solution is to place a regular order or become a subscriber, then there's no chance of missing anything!

Sexism takes a bashing

● *Stevie Kennedy's article calling for an end to sexism in computing in the February issue of Amiga Computing obviously struck a chord with the writer of the following letter.*

Just to fill you in on the background, F. A. Mari has written to another Amiga magazine, Amiga User Intnernational, part of Maxwell Specialist Magazines (with which we have no connection) complaining about an article plugging an apparently overtly sexist computerised jigsaw puzzle.

In that letter, she says she is "appalled that you evidently felt it worthwhile to celebrate this waste of time and intelligence on the part of the (doubless male) programmer, and with a picture, too," and adds: "It really is about time that some thought was

given to the raison d'etre of computing. Would YOU like your son/brother/father to buy this jigsaw? Do you think it likely that your daughter/sister/mother would buy it? Would you like your daughter/sister/mother to have been the model for this jigsaw?"

Her letter to us is as follows:

I enclose a copy of a letter I have sent to Amiga User Internatiol, following your back page article in the February 1991 issue of Amiga Computing.

This letter expressed my views on sexist software and also on wider issues. Sexism pervades the entire computer industry and the possible purchase of sexist software is the END of the line, rather than the beginning.

Who sold you your machine? Who have you spoken to on the phone about your machine? Who writes the majority of both letters and articles in the magazines you read? Who opened up your 'box', if anyone ever has? Who are the people YOU consider to be most computer literate?

As you say, Stevie, until this issue is addressed by public debate these very serious problems will proliferate and girls and women will have less and less influence on the very fabric of the society of which they are a legally equal part.

I regret that neither of my letters are on Amiga readable floppies but I am in fact a PC user! (Doesn't stop me having views, though!).

All the best.

F A Mari, Kingsbury, London

● Do you have a view on sexism in computing? If so, why not help to keep the debate going by dropping me a line?

Top of the zaps?

While browsing through the magazines on the shelves of my local newsagent, I had an idea which, if adopted, could change people's views on computer games.

My idea is the creation of a television programme, much like Top of the Pops, but to do with computer software.

The programme could include features such as:

- Top Ten Games – a list of top games for all formats
- Interviews – conversations with top programmers and graphic artists etc.
- Previews – in depth view of games currently being developed.
- News – information like game prices and release dates

I believe such a programme would be warmly received by the punters. However, perhaps the computer magazines – yourselves included – may see this type of television series as a threat to your livelihood as gamesplayers would not have to pay to receive up-to-the-minute computer game news.

What are your views?

S N Hardy, Sheffield

I love your idea of a computer games TV programme. It would probably be best suited to Channel 4, which bravely caters for many different interests and groups. It might be an even better idea if it covered not only games, but some of the other interesting applications, too.

Would we see such a programme as a threat to our livelihood? I seriously doubt whether a show lasting half an hour or so could ever rival the range of coverage we give in Amiga Computing. We estimate that to cover all aspects of the Amiga like we do would require a programme lasting the best part of a day! And then, what about the formats covered by other magazines?

Chaos and Megadeath...

I bought my Amiga 500 second-hand about three months ago, and for a while everything worked perfectly. I received many games with the computer which were all copied. When I loaded up one of the disks, a message appeared on the screen reading: "Chaos and Megadeth present another cool spread —— does this bootblock offend you?? If so then call me (find my number and its usage will be stopped).

Examining the bootblock more carefully with Killdavirus III I found the phone number but when I dial it I get the unobtainable tone.

Examining some of my other disks, I found that one was infected with the AIDs virus and another with the Northstar virus. I tried contacting the person from whom I had bought my Amiga but he has moved away.

Now, for the same reason, I can't save anything, or copy or initialise any disks, and thus can't move the viruses.

Sometimes, after the computer has been on about 20 minutes, it crashes and a guru meditation message appears on the screen.

Please help.

Gregor McCarthy, Dundee.

You are suffering because of the stupidity of your machine's previous owner, I'm afraid. Using "cracked" software has its price.

So what can yo do now? A good start would be to consign all your pirated games to the formatting pile. If any of your commercial software has been damaged run it through "Killdavirus". It may salvage the software. It may not. Try to keep these infected disks away from your computer and it should be fine.

School for computer fliers

I caught Amiga-itis last November when I had Sublogic's Flight Simulator 2 demonstrated to me at a friend's home.

A few day's later, my friend helped me spend around £600 on an A500 and accessories so that I could also experience the mysteries of this computer and satisfy my craving for flight simulation programs.

I am fortunate that, some years ago, I held a licence to fly small fan-driven aircraft and also gliders. So it was not too difficult for me to get these programs airborne and back down on the ground in one piece.

Some of the less flight-experienced people who also own Amigas and have flight sim programs seem to get disheartened quite quickly after a few crashes. So my question is to programmers: Why has there not been an instruction program written to teach budding computer pilots to fly?

I feel sure it could be done, with instruction prompts flashing on the screen, 'talking' the trainee around the circuit and then letting one 'go solo' when sufficient experience has been gained.

Has there ever been a glider, sailplane program produced for the Amiga? If not, why not? The challenge of one's solo 'Cs' then progressing to bronze, silver, gold and the diamonds would make an interesting program.

As with FS2, if scenery disks could be added, one could soar over the Alps in wave in an attempt to reach record altitudes. The potential challenge is almost endless.

Malcolm Jay, Chingford, London

Sounds like you could become a real high flier in the software world, Malcolm. All you need to do is learn how to program! Failing that, why not present your ideas to some of the software companies? Be very businesslike and make sure you don't end up parting with an outline for a sim program for little or no reward.

As for glider/sailplane programs for the Amiga, we don't know of any existing ones. Does anyone else?

No show for the Scots?

Can anyone tell me when there will be a computer exhibition that will be open to the general public in Scotland?

In Glasgow recently there has been a trade only computer exhibition. I am sure the computer hardware and software companies would find it to their advantage to have an exhibition that is suitable to everyone, similar to those held in Wembley in December or Hammersmith in January.

Why is it that all these public exhibitions are only in the London area? Come on, computer companies – there are other areas for you to show your merchandise. This also applies to the computer press.

I am sure the readers of Amiga Computing and other computer magazines will agree with me on the above.

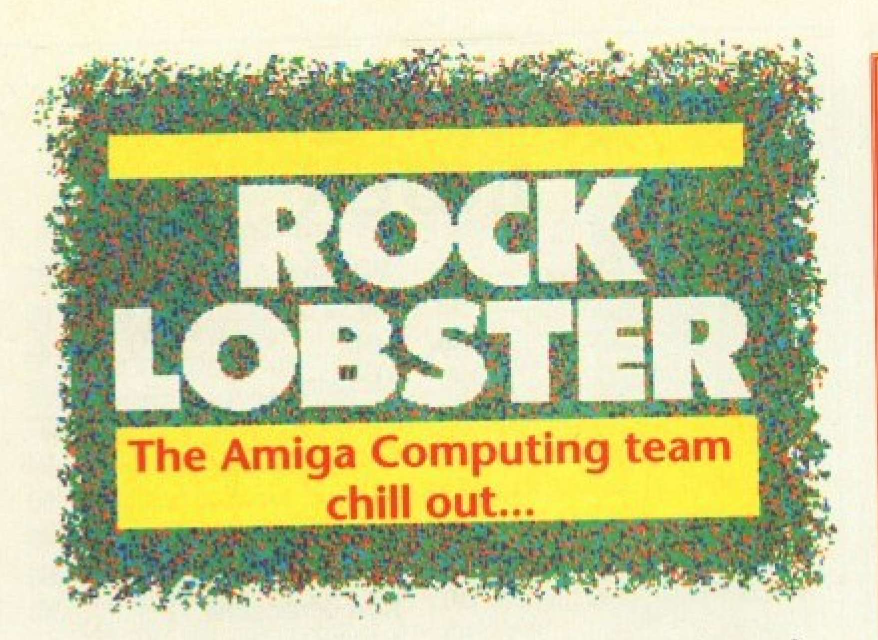
Robert Dalgleish, East Kilbride.

Yes, Robert, I'm sure they do! Especially the many thousands of Scottish ones. The show you refer to, which took place in Glasgow at the end of February, must obviously be the Scottish Computer Show. Unfortunately, this is the only major Scottish show we've had any details of in recent times. Can anyone advise us of any others in the pipeline? We'd be glad to print details on our news pages.



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Over the last three years we have had intermittent trivia sections going by various names. First there was "Guru's Haunt" and then the infamous "Last Blit"

With so many down-right quirky things happening out in Amigaland now is as good a time as any to introduce a down right silly page. Thus you are now reading Rock Lobster. We don't aspire to the dizzy depths of other magazine trivia columns – Rock Lobster will be silly but not stupid This page will be used to announce winners of our new monthly competitions and offload all that trivial stuff that somehow doesn't fit into the rest of the magazine.

We will also be offloading the contents of our magic cupboard to any readers who can be bothered entering downright pointless competitions



Caught in the act!

In the best tradition of trivia, here is the first of many Rock Lobster Caption Competitions.

The photo shows freelance genius Nik "Green" Veitch caught in the act with horror-star cum computer game celeb Elvira.

The best caption wins a stunning prize. Any references to silicon valley will be laughed at, then disqualified.

Entries to: Caught in the Act, Rock Lobster, Amiga Computing, Europa House, Adlington Park, Adlington, Macclesfield SK10 4NP.

Now you NTSC it, now you don't!

Apologies to our thousands of poor ol' American buddies who have been having problems getting our CoverDisk to co-operate. The reason is a smart little utility called ONLYPAL1 which is part of the disk's startup. Its sole purpose in life is to reset the Amy if it chooses to boot up in NTSC mode rather than Britain's trusty PAL system. Being American, most USA Amigas take great offence to PAL and refuse to boot up in it. This means that our disk just keeps rebooting continuously, causing much burring and clicking and little else.

We will be making alternative arrangements from next month onwards. For the moment, if you are a US reader boot with your normal Workbench disk. Making the CoverDisk "NTSC friendly" is a simple matter of editing the Startup-sequence file in the S: directory and removing the reference to ONLYPAL1.

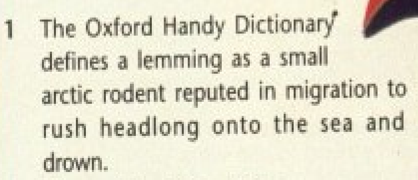
All you techno-junkies might be interested to know what the PAL and NTSC acronyms actually stand for.

PAL represents Phase Alternate Line, the 625 line TV system used in the UK. Most narked American telly junkies will try to persuade you it means Picture Always Lousy

NTSC is the American 525 line system. It's described by most UK TV technicians as Never Twice the Same Colour. The true origin of NTSC is the National Television Standards Committee.

Loopy on Lemmings

20 Things you probably didn't want to know about Lemmings!



1 The Oxford Handy Dictionary defines a lemming as a small arctic rodent reputed in migration to rush headlong onto the sea and drown.
2 The original idea for Lemmings was a Dpaint animation drawn by DMA programmer Mike Dailly.
3 The song Syncronicity 2 by the Police has a line "Packed like Lemmings into shiny metal boxes."
4 Ideas to include tunes such as Mission Impossible, A-Team, Scooby Doo, Addams Family etc. knocked on the head due to fear of copyright problems.
5 When ST Programmer Brian Watson first saw a lemming exploding he laughed so much he fell off his chair!
6 The first cover drawings for Lemmings proved to be too alien and unfriendly looking, so designs were altered to the cute furry creatures in the blue jump suits we have come to know and love.
7 The next word in the dictionary after Lemmings is "Lemon".
8 The game will probably never be converted to the ZX81.
9 One level carefully designed by Dave Jones to be extremely hard, turned out to be so easy it was considered stupid to include it in the game.
10 Trying to sample high pitched squeaky messages that are easy to understand is very difficult. Everyone also felt stupid trying it!
11 The first person to complete the game was a chap in the States who completed all the levels in a 20 hour marathon stint.
12 Contrary to popular belief, Lemmings do not appear in the film "High Noon".
13 No Lemming has ever become President of the United States of America, yet.
14 There are over 330 animations of the little guys.
15 The enamel Lemmings badges have become a much sought after commodity.
16 There is a special level in each of the four sections of the game. These are all from other Psygnosis games, and should be easily recognisable to most Amiga owners.
17 DMA Design are now working with Amiga 3000'=s as their development machines. These are truly excellent machines dudes.
18 Watch out for the Lemmings band demo coming soon to an Amiga near you.
19 Lemmings are not cannibals and do not smoke. The guys on the cover of the box are only pretending.
20 Lemmings is undoubtedly the best game ever written for any computer anywhere, probably.

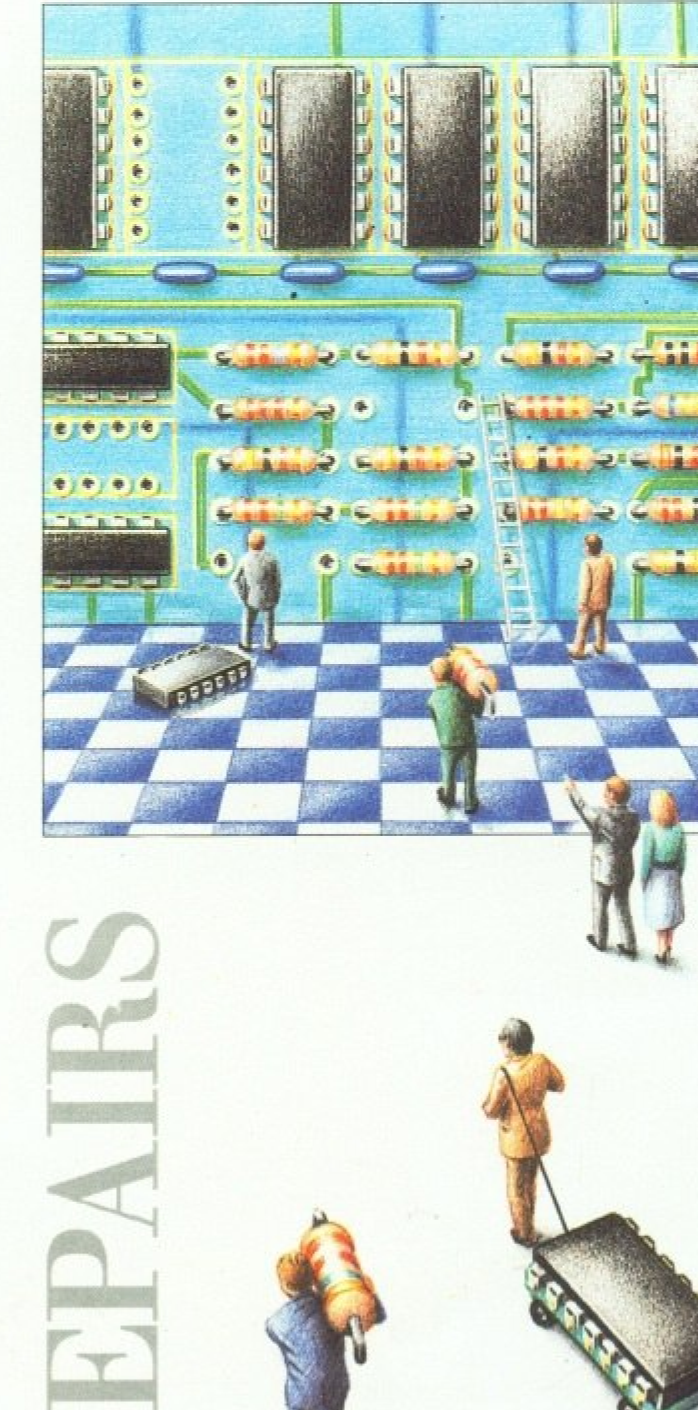
Win a Lemming!

Do you crave your very own cutesy Lemming to float proudly next to your monitor? Would you like to win one of the much sought after Lemming's enamel badges? Do you have a space on your wardrobe for a "Save the Lemmings" sticker? Act now and all your wildest dreams could be realised!

The first 20 people to have their postcard or a sealed down envelope float from the mirky depths of the magic sack will be getting some Lemmings in the post.

Send your begging letters to: Lemmings!, Rock Lobster, Amiga Computing, Europa House, Adlington Park, Macclesfield SK10 4NP

Amiga Repairs



If something is wrong with your Amiga 500 or C64, who better to turn to than the Commodore National Repair Centre.

For all repairs to your computer, one low payment covers diagnosis, repair (including parts and labour) and delivery back to you.

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Vidi ... No 1 in UK & Europe (Leading the way forward)



Amiga Computing: The best Amiga digitiser has had the technicolour treatment. Vidi must be one of the most exciting peripherals you can buy for your Amiga.

Micro Mart: When I first saw Vidi "in the flesh" as it were, at the CES show last September it looked to be the answer to a frustrated Digi View owner's dreams – in fact to see pictures appearing on screen without the customary two minutes wait seemed almost too good to be true. I have consistently produced more good quality pictures in the short time I have had Vidi than I ever did with Digiview.

Zero: Now under normal circumstances cheap usually means poor quality but this is not the case with Rombo. Why? cos Vidi-Amiga is the best digitiser for under £5 and I've tried them all.

Amiga Format: Where quality is concerned, Vidi produces some of the best results I've seen on any digitiser at any price.

Amiga User International: The latest addition to the Rombokit is called Vidi-RGB and brings this already impressive package to the realms of totally amazing. CONCLUSION: Who will find Vidi-Amiga useful? The answer to this is almost anyone with a video recorder or camera and a passing interest in graphics.

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The colour solution is fully compatible with all Amiga's from a standard A500 to the ultimate A3000. No additional RAM is required to get up and running.

You will see from independant review comments that we are undoubtedly their first choice and that was before the complete solution was launched. If you have just purchased your Amiga and are not sure what to buy next, then just read the comments or send for full review and demo disk.



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